

Region 6 - Enforcement & Compliance Assurance Division

INSPECTION REPORT

Inspection Date(s):	3/14/24	
Media Program:	Water (CWA)	
Regulatory Program(s)	Water (CWA) Brine Program (Oil & Gas inspection)	
Company Name:	LaRay Oil, LLC	
Facility Name:	Thompson #1 SWD	
Facility Physical Location:	Off oil lease road off Gas Plant Rd in Smackover at 33.348867, -92.688800	
(city, state, zip code)	Smackover, AR 71762	
Mailing address:	5028 Hwy 7 South	
(city, state, zip code)	Louann, AR 71751	
County/Parish:	Union County	
Facility Phone Number	870-918-9859	
Facility Contact:	Jimmy R. Newton	Owner / Operator
	larayoilco@sat-co.net	
FRS Number:	N/A	
Identification/Permit Number:	ARU002232; ADEQ State No-Discharge permit 0709-WG-SW for AFIN 70-01291	
Media Identifier Number:	N/A	
NAICS:	211111	
SIC:	1311	
Personnel participating in inspection:		
Michael Blaha	EPA / Region 6 ECDW	Inspector / Enforcement Officer
Uma Lad	EPA / Region 6 ECDW	Inspector / Enforcement Officer
Kerri McCabe (lead)	EPA / Region 6 ECDW	Inspector / Enforcement Officer
Jimmy R. Newton	LaRay Oil, LLC	Owner / Operator
EPA Lead Inspector Signature/Date		
	Kerri McCabe	Date
Supervisor Signature/Date		
	Jeanne Eckhart	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

EPA Region 6 inspectors Michael Blaha, Uma Lad, and Kerri McCabe (lead) arrived at the LaRay Oil, LLC – Thompson #1 SWD, located off an oil lease road off Gas Plant Road in Smackover at 33.348867, - 92.688800; at 1303 on 3/14/24 for an unannounced inspection. Mr. Jimmy R. Newton, LaRay Oil, LLC; represented the facility at the time of the inspection. The inspection was conducted by the authority of the Clean Water Act (CWA) to determine compliance with Environmental Protection Agency (EPA) regulations. There were no other federal, state, or local agency representatives present at the time of the inspection.

FACILITY DESCRIPTION

EPA conducted an inspection on the LaRay Oil, LLC – Thompson #1 SWD, which contains one storage tank and one saltwater disposal (SWD) well.

Section II - OBSERVATIONS

I observed a storage tank and a saltwater disposal (SWD) well belonging to LaRay Oil, LLC; see Appendix 1 (Photographs Log), Photo No. 1 and No. 2. For additional GPS location and photo metadata, see Appendix 1.

I observed the pump for the SWD well to have an active leak during the inspection. The release from the pump was collecting and commingling with fluid inside secondary containment, see Photo No. 4 through No. 8.

I observed the drainpipe for secondary containment to have an active leak at the valve on the pipe, see Photo No. 9. There was a cap on the drainpipe.

A Total Dissolved Solids (TDS) reading of 25,833 mg/L was taken in a pool below the leaking drainpipe for the secondary containment, see Photo No. 10 through No. 14. This conveyance discharges to an intermittent, unnamed tributary (UT) of Holmes Creek.

Another TDS reading of 12,558 mg/L was taken directly downstream in the same conveyance as the first TDS reading, see Photo No. 15 through No. 19.

A TDS reading of 3,712 mg/L was taken at the point of entry (POE) for the conveyance of the drainpipe into the receiving stream, see Photo No. 20 through No. 26.

A TDS reading of 447.5 mg/L for background comparison was taken in the receiving stream, see Photo No. 27 through No. 31.

Directly downstream of the POE, a TDS reading of 1,822 mg/L was taken in the receiving stream, see Photo No. 32 through No. 36.

A final TDS reading of 449.3 mg/L was taken to demonstrate the return to the background reading from upstream in the receiving stream, see Photo No. 37 through No. 41.

All TDS field readings observed throughout the inspection were taken with a properly calibrated, EPA-issued, YSI Pro30 Conductivity/TDS/Salinity/Temperature Meter (#Y60530).

Section III – AREAS OF CONCERN

A closing conference was held with Mr. Jimmy R. Newton, LaRay Oil, LLC; to discuss the findings of the inspection. Areas of concern at the time of the inspection include the active leak at the pump for the SWD well, active leave at the drainpipe for secondary containment, and elevated TDS readings from the surface water along the discharge conveyance.

The active release of saltwater at the SWD pump inside secondary containment was stopped by Mr. Newton by repair of the leaking pump at the SWD. Mr. Newton indicated, during the inspection, that he would replace the leaking valve at the drainpipe for the secondary containment.

Section IV – FOLLOW UP

Inspector will conduct follow-up phone calls with the company representative(s) over the coming weeks and months to ensure areas of concern are properly addressed.

A follow-up inspection was conducted April 4, 2024.

Section V – LIST OF APPENDICES

Appendix 1 – Photograph Log – 41 photos taken 3/14/24.

Appendix 1

Photograph Log

41 Photos



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 1

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010409

Orientation: E

Date of Photo: 03/14/2024

Time of Photo: 1333

Latitude: 33.348867

Longitude: -92.688800

Photographer: Kerri McCabe

Description: This photo was taken looking E at the facility showing the facility sign.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010410

Orientation: E-NE

Date of Photo: 03/14/2024

Time of Photo: 1333

Latitude: 33.348817

Longitude: -92.688817

Photographer: Kerri McCabe

Description: This photo was taken looking E-NE at the facility showing an overview of the facility.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010411

Orientation: S-SE

Date of Photo: 03/14/2024

Time of Photo: 1334

Latitude: 33.348950°

Longitude: -92.688667°

Photographer: Kerri McCabe

Description: This photo was taken looking S-SE showing the pump for the saltwater disposal well (SWD).



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010412

Orientation: SE

Date of Photo: 03/14/2024

Time of Photo: 1334

Latitude: 33.348950

Longitude: -92.688681

Photographer: Kerri McCabe

Description: This photo was taken looking SE showing a closeup of a leak at the pump for the SWD.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 5

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010413

Orientation: S

Date of Photo: 03/14/2024

Time of Photo: 1334

Latitude: 33.348928

Longitude: -92.688683

Photographer: Kerri McCabe

Description: This photo was taken looking S showing the flowpath of the leak from the pump for the SWD into secondary containment.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 6

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010413 (EDIT)

Orientation: S

Date of Photo: 03/14/2024

Time of Photo: 1334

Latitude: 33.348928

Longitude: -92.688683

Photographer: Kerri McCabe

Description: This photo was taken looking S showing the flowpath of the leak from the pump for the SWD into secondary containment.

EDIT: flowpath line of SWD pump leak (dash) added for clarity.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 7

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010414

Orientation: E-SE

Date of Photo: 03/14/2024

Time of Photo: 1334

Latitude: 33.348917

Longitude: -92.688670

Photographer: Kerri McCabe

Description: This photo was taken looking E-SE showing the continued flowpath of the leak from the pump for the SWD into secondary containment in Photo No. 4-6.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 8

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010414 (EDIT)

Orientation: E-SE

Date of Photo: 03/14/2024

Time of Photo: 1334

Latitude: 33.348917

Longitude: -92.688670

Photographer: Kerri McCabe

Description: This photo was taken looking E-SE showing the continued flowpath of the leak from the pump for the SWD into secondary containment in Photo No. 4-6.

EDIT: flowpath line of SWD pump leak (dash) added for clarity.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 9

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010415

Orientation: NW

Date of Photo: 03/14/2024

Time of Photo: 1335

Latitude: 33.348767

Longitude: -92.688600

Photographer: Kerri McCabe

Description: This photo was taken looking NW showing the drainpipe from the secondary containment; active leak noted at drainpipe.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 10

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010416

Orientation: E

Date of Photo: 03/14/2024

Time of Photo: 1336

Latitude: 33.348797

Longitude: -92.688554

Photographer: Kerri McCabe

Description: This photo was taken looking E showing the Total Dissolved Solids (TDS) reading in the pool of water below the drainpipe in the secondary containment for the facility.

Meter	YSI Pro30 Conductivity/TDS/Salinity/Temperature Meter #Y60530
Date / Time	14 March, 2024 / 1336
TSD / Temperature	25833 mg/L at 18.4 degC
Sampler / Analyzer	Kerri McCabe



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 11

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010417

Orientation: NW

Date of Photo: 03/14/2024

Time of Photo: 1337

Latitude: 33.348797

Longitude: -92.688554

Photographer: Kerri McCabe

Description: This photo was taken looking NW showing the area upstream of the TDS sample location in Photo No. 10.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 12

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010417 (EDIT)

Orientation: NW

Date of Photo: 03/14/2024

Time of Photo: 1337

Latitude: 33.348797

Longitude: -92.688554

Photographer: Kerri McCabe

Description: This photo was taken looking NW showing the area upstream of the TDS sample location in Photo No. 10.

EDIT: flowpath line of drainpipe (dash) added for clarity.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 13

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010418

Orientation: SE

Date of Photo: 03/14/2024

Time of Photo: 1337

Latitude: 33.348797

Longitude: -92.688554

Photographer: Kerri McCabe

Description: This photo was taken looking SE showing the area downstream of the TDS sample location in Photo No. 10.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 14

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010418 (EDIT)

Orientation: SE

Date of Photo: 03/14/2024

Time of Photo: 1337

Latitude: 33.348797

Longitude: -92.688554

Photographer: Kerri McCabe

Description: This photo was taken looking SE showing the area downstream of the TDS sample location in Photo No. 10.

EDIT: flowpath line of drainpipe (dash) added for clarity.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 15

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010419

Orientation: S-SW

Date of Photo: 03/14/2024

Time of Photo: 1343

Latitude: 33.348750

Longitude: -92.688383

Photographer: Kerri McCabe

Description: This photo was taken looking S-SW showing the TDS reading downstream of the pool of water below the drainpipe in the secondary containment for the facility.

Meter	YSI Pro30 Conductivity/TDS/Salinity/Temperature Meter #Y60530
Date / Time	14 March, 2024 / 1343
TSD / Temperature	12558 mg/L at 18.4 degC
Sampler / Analyzer	Kerri McCabe



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 16

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010420

Orientation: W

Date of Photo: 03/14/2024

Time of Photo: 1343

Latitude: 33.348750

Longitude: -92.688383

Photographer: Kerri McCabe

Description: This photo was taken looking W showing the area upstream of the TDS sample location in Photo No. 15.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 17

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010420 (EDIT)

Orientation: W

Date of Photo: 03/14/2024

Time of Photo: 1343

Latitude: 33.348750

Longitude: -92.688383

Photographer: Kerri McCabe

Description: This photo was taken looking W showing the area upstream of the TDS sample location in Photo No. 15.

EDIT: flowpath line of drainpipe (dash) added for clarity.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 18

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010421

Orientation: SE

Date of Photo: 03/14/2024

Time of Photo: 1344

Latitude: 33.348750

Longitude: -92.688383

Photographer: Kerri McCabe

Description: This photo was taken looking SE showing the area downstream of the TDS sample location in Photo No. 15.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 19

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010421 (EDIT)

Orientation: SE

Date of Photo: 03/14/2024

Time of Photo: 1344

Latitude: 33.348750

Longitude: -92.688383

Photographer: Kerri McCabe

Description: This photo was taken looking SE showing the area downstream of the TDS sample location in Photo No. 15.

EDIT: flowpath line of drainpipe (dash) and flow direction of receiving stream (dotted) added for clarity.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 20

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010422

Orientation: SE

Date of Photo: 03/14/2024

Time of Photo: 1402

Latitude: 33.348700

Longitude: -92.688217

Photographer: Kerri McCabe

Description: This photo was taken looking SE showing the TDS reading of the flowpath at the point of entry (POE) with the receiving stream.

Meter	YSI Pro30 Conductivity/TDS/Salinity/Temperature Meter #Y60530
Date / Time	14 March, 2024 / 1402
TSD / Temperature	3712 mg/L at 18.4 degC
Sampler / Analyzer	Kerri McCabe



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 21

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010425

Orientation: W-NW

Date of Photo: 03/14/2024

Time of Photo: 1404

Latitude: 33.348700

Longitude: -92.688217

Photographer: Kerri McCabe

Description: This photo was taken looking W-NW showing the area upstream of the TDS sample location in Photo No. 20.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 22

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010425 (EDIT)

Orientation: W-NW

Date of Photo: 03/14/2024

Time of Photo: 1404

Latitude: 33.348700

Longitude: -92.688217

Photographer: Kerri McCabe

Description: This photo was taken looking W-NW showing the area upstream of the TDS sample location in Photo No. 20.

EDIT: flowpath line of drainpipe (dash) added for clarity.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 23

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010423

Orientation: S

Date of Photo: 03/14/2024

Time of Photo: 1403

Latitude: 33.348700

Longitude: -92.688217

Photographer: Kerri McCabe

Description: This photo was taken looking S showing the flowpath POE into the receiving stream for the TDS sample location in Photo No. 20.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 24

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010423 (EDIT)

Orientation: S

Date of Photo: 03/14/2024

Time of Photo: 1403

Latitude: 33.348700

Longitude: -92.688217

Photographer: Kerri McCabe

Description: This photo was taken looking S showing the flowpath POE into the receiving stream for the TDS sample location in Photo No. 20.

EDIT: flowpath line of drainpipe (dash) and flow direction of receiving stream (dotted) added for clarity.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 25

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010424

Orientation: E-NE

Date of Photo: 03/14/2024

Time of Photo: 1403

Latitude: 33.348700

Longitude: -92.688217

Photographer: Kerri McCabe

Description: This photo was taken looking E-NE showing the area downstream of the flowpath POE into the receiving stream for the TDS sample location in Photo No. 20.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 26

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010424 (EDIT)

Orientation: E-NE

Date of Photo: 03/14/2024

Time of Photo: 1403

Latitude: 33.348700

Longitude: -92.688217

Photographer: Kerri McCabe

Description: This photo was taken looking E-NE showing the area downstream of the flowpath POE into the receiving stream for the TDS sample location in Photo No. 20.

EDIT: flowpath line from drainpipe (dash) and flow direction of receiving stream (dotted) added for clarity.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 27

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010426

Orientation: S-SE

Date of Photo: 03/14/2024

Time of Photo: 1413

Latitude: 33.348750

Longitude: -92.688250

Photographer: Kerri McCabe

Description: This photo was taken looking S-SE showing the TDS reading in the receiving stream upstream of the flowpath POE; this measurement was used to establish the background reading.

Meter	YSI Pro30 Conductivity/TDS/Salinity/Temperature Meter #Y60530
Date / Time	14 March, 2024 / 1413
TSD / Temperature	447.5 mg/L at 19.0 degC
Sampler / Analyzer	Kerri McCabe



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 28

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010427

Orientation: S-SW

Date of Photo: 03/14/2024

Time of Photo: 1414

Latitude: 33.348750

Longitude: -92.688250

Photographer: Kerri McCabe

Description: This photo was taken looking S-SW showing the area upstream of the TDS sample location in Photo No. 27.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 29

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010427 (EDIT)

Orientation: S-SW

Date of Photo: 03/14/2024

Time of Photo: 1414

Latitude: 33.348750

Longitude: -92.688250

Photographer: Kerri McCabe

Description: This photo was taken looking S-SW showing the area upstream of the TDS sample location in Photo No. 27.

EDIT: flow direction of receiving stream (dotted) added for clarity.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 30

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010428

Orientation: E-NE

Date of Photo: 03/14/2024

Time of Photo: 1414

Latitude: 33.348750

Longitude: -92.688250

Photographer: Kerri McCabe

Description: This photo was taken looking S-SW showing the area downstream of the TDS sample location in Photo No. 27.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 31

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010428 (EDIT)

Orientation: E-NE

Date of Photo: 03/14/2024

Time of Photo: 1414

Latitude: 33.348750

Longitude: -92.688250

Photographer: Kerri McCabe

Description: This photo was taken looking S-SW showing the area downstream of the TDS sample location in Photo No. 27.

EDIT: flowpath line from drainpipe (dash) and flow direction of receiving stream (dotted) added for clarity.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 32

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010429

Orientation: E

Date of Photo: 03/14/2024

Time of Photo: 1417

Latitude: 33.348800

Longitude: -92.688233

Photographer: Kerri McCabe

Description: This photo was taken looking E showing the TDS reading in the receiving stream downstream of the flowpath POE.

Meter	YSI Pro30 Conductivity/TDS/Salinity/Temperature Meter #Y60530
Date / Time	14 March, 2024 / 1417
TSD / Temperature	1822 mg/L at 19.2 degC
Sampler / Analyzer	Kerri McCabe



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 33

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010430

Orientation: S-SW

Date of Photo: 03/14/2024

Time of Photo: 1418

Latitude: 33.348800

Longitude: -92.688233

Photographer: Kerri McCabe

Description: This photo was taken looking S-SW showing the area upstream of the TDS sample location in Photo No. 32.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 34

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010430 (EDIT)

Orientation: S-SW

Date of Photo: 03/14/2024

Time of Photo: 1418

Latitude: 33.348800

Longitude: -92.688233

Photographer: Kerri McCabe

Description: This photo was taken looking S-SW showing the area upstream of the TDS sample location in Photo No. 32.

EDIT: flowpath line from drainpipe (dash) and flow direction of receiving stream (dotted) added for clarity.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 35

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010431

Orientation: N-NE

Date of Photo: 03/14/2024

Time of Photo: 1418

Latitude: 33.348800

Longitude: -92.688233

Photographer: Kerri McCabe

Description: This photo was taken looking N-NE showing the area downstream of the TDS sample location in Photo No. 32.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 36

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010431 (EDIT)

Orientation: N-NE

Date of Photo: 03/14/2024

Time of Photo: 1418

Latitude: 33.348800

Longitude: -92.688233

Photographer: Kerri McCabe

Description: This photo was taken looking N-NE showing the area downstream of the TDS sample location in Photo No. 32.

EDIT: flow direction for receiving stream (dotted) added for clarity.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 37

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010432

Orientation: E

Date of Photo: 03/14/2024

Time of Photo: 1422

Latitude: 33.348917

Longitude: -92.688267

Photographer: Kerri McCabe

Description: This photo was taken looking E showing a second TDS reading in the receiving stream downstream of the flowpath POE; this measurement was used to establish return to background.

Meter	YSI Pro30 Conductivity/TDS/Salinity/Temperature Meter #Y60530
Date / Time	14 March, 2024 / 1422
TSD / Temperature	449.3 mg/L at 19.7 degC
Sampler / Analyzer	Kerri McCabe



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 38

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010433

Orientation: S

Date of Photo: 03/14/2024

Time of Photo: 1423

Latitude: 33.348917

Longitude: -92.688267

Photographer: Kerri McCabe

Description: This photo was taken looking S showing the area upstream of the TDS sample location in Photo No. 37.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 39

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010433 (EDIT)

Orientation: S

Date of Photo: 03/14/2024

Time of Photo: 1423

Latitude: 33.348917

Longitude: -92.688267

Photographer: Kerri McCabe

Description: This photo was taken looking S showing the area upstream of the TDS sample location in Photo No. 37.

EDIT: flow direction of receiving stream (dotted) added for clarity.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 40

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010434

Orientation: N-NE

Date of Photo: 03/14/2024

Time of Photo: 1423

Latitude: 33.348917

Longitude: -92.688267

Photographer: Kerri McCabe

Description: This photo was taken looking N-NE showing the area downstream of the TDS sample location in Photo No. 37.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 41

Location: LaRay Oil, LLC – Thompson #1 SWD (33.348867, -92.688800)		
City: Smackover	County/Parish: Union	State: Arkansas



Photo File Name: R0010434 (EDIT)

Orientation: N-NE

Date of Photo: 03/14/2024

Time of Photo: 1423

Latitude: 33.348917

Longitude: -92.688267

Photographer: Kerri McCabe

Description: This photo was taken looking N-NE showing the area downstream of the TDS sample location in Photo No. 37.

EDIT: flow direction of receiving stream (dotted) added for clarity.