

## JOINT APPLICATION FOR PERMITS

## U.S. ARMY CORPS OF ENGINEERS - IDAHO DEPARTMENT OF WATER RESOURCES - IDAHO DEPARTMENT OF LANDS

**Authorities:** The Department of Army Corps of Engineers (Corps), Idaho Department of Water Resources (IDWR), and Idaho Department of Lands (IDL) established a joint process for activities impacting jurisdictional waterways that require review and/or approval of both the Corps and State of Idaho. Department of Army permits are required by Section 10 of the Rivers & Harbors Act of 1899 for any structure(s) or work in or affecting navigable waters of the United States and by Section 404 of the Clean Water Act for the discharge of dredged or fill materials into waters of the United States, including adjacent wetlands. State permits are required under the State of Idaho, Stream Protection Act (Title 42, Chapter 38, Idaho Code and Lake Protection Act (Section 58, Chapter 13 et seq., Idaho Code). In addition the information will be used to determine compliance with Section 401 of the Clean Water Act by the appropriate State, Tribal or Federal entity.

**Joint Application:** Information provided on this application will be used in evaluating the proposed activities. Disclosure of requested information is voluntary. Failure to supply the requested information may delay processing and issuance of the appropriate permit or authorization. **Applicant will need to send a completed application, along with one (1) set of legible, black and white (8½"x11"), reproducible drawings that illustrate the location and character of the proposed project / activities to both the Corps and the State of Idaho.**

**See Instruction Guide** for assistance with Application. Accurate submission of requested information can prevent delays in reviewing and permitting your application. Drawings including vicinity maps, plan-view and section-view drawings must be submitted on 8-1/2 x 11 papers.

**Do not start work until you have received all required permits from both the Corps and the State of Idaho**

FOR AGENCY USE ONLY									
USACE NWW-	Date Received:			<input type="checkbox"/> Incomplete Application Returned	Date Returned:				
Idaho Department of Water Resources No.	Date Received:			<input type="checkbox"/> Fee Received	Receipt No.:				
Idaho Department of Lands No. L95S4916E	Date Received: 1/10/2020			<input checked="" type="checkbox"/> Fee Received	Receipt No.: 75 8300				
<b>INCOMPLETE APPLICATIONS MAY NOT BE PROCESSED</b>									
1. CONTACT INFORMATION - APPLICANT Required:					2. CONTACT INFORMATION - AGENT:				
Name: HOWARD RUDE - registered agent					Name: GORDON DOBLER				
Company: MAPLEWOOD PROPERTY MANAGEMENT, LLC					Company: FRAME & SMETANA				
Mailing Address: 6426 E MAPLEWOOD AVE					Mailing Address: 603 N 4TH ST				
City: POST FALLS			State: ID	Zip Code: 83854	City: COEUR D'ALENE			State: ID	Zip Code: 83814
Phone Number (include area code): 208 818-2101		E-mail: hrude@etcoservices.com			Phone Number (include area code): 208 755-9732		E-mail: gordon@doblerengineering.com		
3. PROJECT NAME or TITLE: RUDE RESIDENCE					4. PROJECT STREET ADDRESS: 6426 E MAPLEWOOD AVE				
5. PROJECT COUNTY: KOOTENAI		6. PROJECT CITY: POST FALLS			7. PROJECT ZIP CODE: 83854		8. NEAREST WATERWAY/WATERBODY: SPOKANE RIVER		
9. TAX PARCEL ID#: 0-8246-001-001-0		10. LATITUDE: 47° 41.87' LONGITUDE: 116° 51.84'			11a. 1/4: NW	11b. 1/4:	11c. SECTION: 08	11d. TOWNSHIP: 50N	11e. RANGE: 4W
12a. ESTIMATED START DATE: 01/06/2020		12b. ESTIMATED END DATE: 01/17/2020			13a. IS PROJECT LOCATED WITHIN ESTABLISHED TRIBAL RESERVATION BOUNDARIES? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES Tribe:				
13b. IS PROJECT LOCATED IN LISTED ESA AREA? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES					13c. IS PROJECT LOCATED ON/NEAR HISTORICAL SITE? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES				
14. DIRECTIONS TO PROJECT SITE: Include vicinity map with legible crossroads, street numbers, names, landmarks.  From intersection of Huetter Rd & Seltice Way, drive south on Huetter Rd, turn right on Maplewood Ave, drive approximately 1/2 mile, driveway to residence is on the left, take driveway down to the waterfront, project site is on the waterfront.									
15. PURPOSE and NEED: <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Public <input checked="" type="checkbox"/> Private <input type="checkbox"/> Other Describe the reason or purpose of your project; include a brief description of the overall project. Continue to Block 16 to detail each work activity and overall project.  The purpose of this project is to provide a deep water access for watercraft, from the existing shoreline across an existing sand bar to the main channel of the Spokane River. A channel will be dredged from the shoreline to two different river access points, one on either side of an existing dock/bridge. Dredging will take place during low water conditions during the winter months and will not extend to the river water surface.									

16. DETAILED DESCRIPTION OF EACH ACTIVITY WITHIN OVERALL PROJECT. Specifically indicate portions that take place within waters of the United States, including wetlands: Include dimensions; equipment, construction, methods; erosion, sediment and turbidity controls; hydrological changes: general stream/surface water flows, estimated winter/summer flows; borrow sources, disposal locations etc.:

Dredging operations will begin after the adjacent Spokane River is at low stage. This is typically between the months of February and April (see attached graph). The dredging operations will be staged from the shoreline of the existing Rude residence. Access to the shoreline will be via the existing paved driveway and turnaround. An excavator will load the excavated material into dump trucks, which will transport the material off site. Access to the channel east of the existing dock will be from the west side, under the existing walking bridge. Dredged material will be tested for contaminants as it is being excavated. Any material containing contaminants will be brought to an approved hazardous waste disposal facility. A preliminary site evaluation was performed in June, 2019 and samples of the river-bottom sediments were tested for contamination. A copy of that report is included with this application.

The channel bottom will vary from 10' wide at the river access points to 20' wide between the river channel and the shoreline. The total length of the channel will be approximately 389'. The bottom elevation of the channel will be 2123. This will provide from about 4' to 5' of channel depth, while keeping the bottom of the channel above the expected river water surface elevation of 2121. The depth of excavation varies from 0.5' to 3.0'. The dredging activities will be completed in 5-10 working days. We estimate that about 600-625 cubic yards of material will be removed from the site. The attached Site Plan and cross-sections show the location and dimensions of the area to be dredged.

17. DESCRIBE ALTERNATIVES CONSIDERED to AVOID or MEASURES TAKEN to MINIMIZE and/ or COMPENSATE for IMPACTS to WATERS of the UNITED STATES, INCLUDING WETLANDS: See Instruction Guide for specific details.

The project will have minimal impact to aquatic resources. The following mitigation measures will be implemented to reduce possible impacts.

1. The project will be done during the winter months (Jan-Feb) under low water conditions. There will be no contact with open water in the main channel of the Spokane River, and no contact with the river bed outside of the area
2. Silt fence will be installed at the river access points to preclude migration of disturbed soil from the site during a possible snow-melt or runoff event.
3. Excavation equipment and transport vehicles will be rubber tired or rubber tracked in order to minimize disturbance. Transport vehicles will stay within the dredged area as much as practical to avoid impacts to adjacent land.
4. Off-site tracking of dredged material will be managed by sweeping of the paved driveway as needed.

The National Wetlands Inventory shows wetlands in the area of the excavation (see attached exhibit). These wetlands are classified as an emergent wetland occurring in tidal areas or areas with seasonal flooding which is gone by the end of the growing season. The channel is inundated throughout the growing season and for at least 9-10 months of year. This prohibits any shrubs or other vegetation from growing in the channel. Consequently, dredging in the channel will not impact any existing vegetation.

18. PROPOSED MITIGATION STATEMENT or PLAN: If you believe a mitigation plan is not needed, provide a statement and your reasoning why a mitigation plan is NOT required. Or, attach a copy of your proposed mitigation plan.

The measures listed in Block 17 will reduce the anticipated impacts to aquatic resources to a minimal level. Because of this, it is anticipated that a mitigation plan will not be necessary.

Dredging of the channel will provide a clear environmental and economic benefit to the public. Over time, silts and fine material are deposited in the existing channel through the natural sedimentation process. This deposition reduces the overall cross-sectional area of the flow. This results in a measurable increase in localized flow velocity of the river, which can increase bank and stream bed erosion along the river. Removal of the excess material will restore the flow regime and reduce the potential for erosion along the stream bed and banks, as well as mitigate damage from wave action. Economic and environmental benefit is derived from avoiding and reducing costs associated with stabilizing stream banks and mitigating damage to sensitive aquatic species that exist along the rivers edge.

19. TYPE and QUANTITY of MATERIAL(S) to be discharged below the ordinary high water mark and/or wetlands:

Dirt or Topsoil: \_\_\_\_\_ 0 cubic yards  
 Dredged Material: \_\_\_\_\_ 0 cubic yards  
 Clean Sand: \_\_\_\_\_ 0 cubic yards  
 Clay: \_\_\_\_\_ 0 cubic yards  
 Gravel, Rock, or Stone: \_\_\_\_\_ 0 cubic yards  
 Concrete: \_\_\_\_\_ 0 cubic yards  
 Other (describe): \_\_\_\_\_ : \_\_\_\_\_ 0 cubic yards  
 Other (describe): \_\_\_\_\_ : \_\_\_\_\_ 0 cubic yards

TOTAL: \_\_\_\_\_ 0 cubic yards

20. TYPE and QUANTITY of impacts to waters of the United States, including wetlands:

Filling: \_\_\_\_\_ 0 acres \_\_\_\_\_ 0 sq ft. \_\_\_\_\_ 0 cubic yards  
 Backfill & Bedding: \_\_\_\_\_ 0 acres \_\_\_\_\_ 0 sq ft. \_\_\_\_\_ 0 cubic yards  
 Land Clearing: \_\_\_\_\_ 0 acres \_\_\_\_\_ 0 sq ft. \_\_\_\_\_ 0 cubic yards  
 Dredging: \_\_\_\_\_ 0 acres \_\_\_\_\_ 0 sq ft. \_\_\_\_\_ 0 cubic yards  
 Flooding: \_\_\_\_\_ 0 acres \_\_\_\_\_ 0 sq ft. \_\_\_\_\_ 0 cubic yards  
 Excavation: \_\_\_\_\_ 0 acres \_\_\_\_\_ 0 sq ft. \_\_\_\_\_ 0 cubic yards  
 Draining: \_\_\_\_\_ 0 acres \_\_\_\_\_ 0 sq ft. \_\_\_\_\_ 0 cubic yards  
 Other: \_\_\_\_\_ : \_\_\_\_\_ 0 acres \_\_\_\_\_ 0 sq ft. \_\_\_\_\_ 0 cubic yards

TOTALS: \_\_\_\_\_ 0 acres \_\_\_\_\_ 0 sq ft. \_\_\_\_\_ 0 cubic yards



21. HAVE ANY WORK ACTIVITIES STARTED ON THIS PROJECT?  NO  YES If yes, describe ALL work that has occurred including dates.

**RECEIVED**

**JAN 10 2020**

22. LIST ALL PREVIOUSLY ISSUED PERMIT AUTHORIZATIONS:

ARMY CORPS OF ENGINEERS -  
IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY  
IDAHO DEPARTMENT OF LANDS ENCROACHMENT PERMIT

NWW #041200124 1/27/05  
DEQ #04120125 1/03/05  
L-95-S-4916C

**Idaho Dept. of Lands  
Mica Supervisory Area**

23.  YES, Alteration(s) are located on Public Trust Lands, Administered by Idaho Department of Lands

24. SIZE AND FLOW CAPACITY OF BRIDGE/CULVERT and DRAINAGE AREA SERVED: \_\_\_\_\_ Square Miles

25. IS PROJECT LOCATED IN A MAPPED FLOODWAY?  NO  YES If yes, contact the floodplain administrator in the local government jurisdiction in which the project is located. A Floodplain Development permit and a No-rise Certification may be required.

26a. WATER QUALITY CERTIFICATION: Pursuant to the Clean Water Act, anyone who wishes to discharge dredge or fill material into the waters of the United States, either on private or public property, must obtain a Section 401 Water Quality Certification (WQC) from the appropriate water quality certifying government entity.  
*See Instruction Guide for further clarification and all contact information.*

The following information is requested by IDEQ and/or EPA concerning the proposed impacts to water quality and anti-degradation:

- NO  YES Is applicant willing to assume that the affected waterbody is high quality?  
 NO  YES Does applicant have water quality data relevant to determining whether the affected waterbody is high quality or not?  
 NO  YES Is the applicant willing to collect the data needed to determine whether the affected waterbody is high quality or not?

26b. BEST MANAGEMENT PRACTICES (BMP's): List the Best Management Practices and describe these practices that you will use to minimize impacts on water quality and anti-degradation of water quality. All feasible alternatives should be considered - treatment or otherwise. Select an alternative which will minimize degrading water quality

- Dredging will take place during low water conditions
- Silt fence will be installed at all river access points and adjacent property lines to avoid migration of disturbed material during a snow-melt or runoff event.
- Tracking of material off-site will be contained by sweeping the paved access driveway as needed.

Through the 401 Certification process, water quality certification will stipulate minimum management practices needed to prevent degradation.

27. LIST EACH IMPACT to stream, river, lake, reservoir, including shoreline: Attach site map with each impact location.

Activity	Name of Water Body	Intermittent Perennial	Description of Impact and Dimensions	Impact Length Linear Feet
Dredge	Spokane River	Perennial	Dredging of 10' to 20' wide channel	389
<b>TOTAL STREAM IMPACTS (Linear Feet):</b>				<b>389</b>

28. LIST EACH WETLAND IMPACT include mechanized clearing, fill excavation, flood, drainage, etc. Attach site map with each impact location.

Activity	Wetland Type: Emergent, Forested, Scrub/Shrub	Distance to Water Body (linear ft)	Description of Impact Purpose: road crossing, compound, culvert, etc.	Impact Length (acres, square ft linear ft)
<b>TOTAL WETLAND IMPACTS (Square Feet):</b>				

29. ADJACENT PROPERTY OWNERS NOTIFICATION REQUIREMENT: Provide contact information of ALL adjacent property owners below.

Name: Christopher Cheeley Mailing Address: 6314 E Maplewood Ave City: State: Zip Code: Post Falls ID 83854 Phone Number (include area code): E-mail:	Name: Kirk Hill Mailing Address: 6430 E Maplewood Ave City: State: Zip Code: Post Falls ID 83854 Phone Number (include area code): E-mail:
Name:  Mailing Address:  City: State: Zip Code:  Phone Number (include area code): E-mail:	Name:  Mailing Address:  City: State: Zip Code:  Phone Number (include area code): E-mail:
Name:  Mailing Address:  City: State: Zip Code:  Phone Number (include area code): E-mail:	Name:  Mailing Address:  City: State: Zip Code:  Phone Number (include area code): E-mail:
Name:  Mailing Address:  City: State: Zip Code:  Phone Number (include area code): E-mail:	Name:  Mailing Address:  City: State: Zip Code:  Phone Number (include area code): E-mail:

30. SIGNATURES: STATEMENT OF AUTHORIZATION / CERTIFICATION OF AGENT / ACCESS

*Application is hereby made for permit, or permits, to authorize the work described in this application and all supporting documentation. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein; or am acting as the duly authorized agent of the applicant (Block 2). I hereby grant the agencies to which this application is made, the right to access/come upon the above-described location(s) to inspect the proposed and completed work/activities.*

**RECEIVED**

FEB 06 2020

Idaho Dept. of Lands  
Mica Supervisory Area

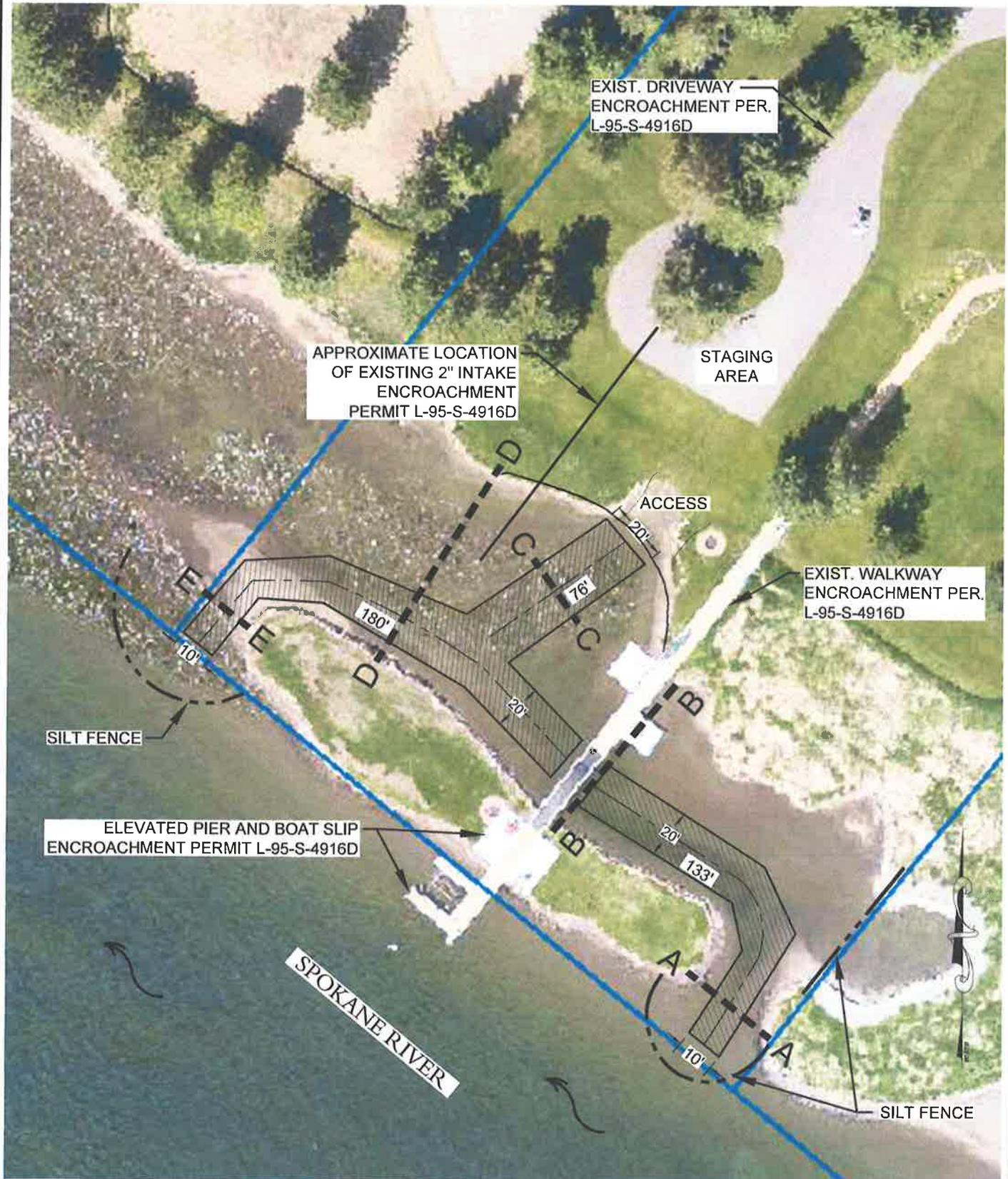
Signature of Applicant: Howard Rude

Date: 2/6/2020

Signature of Agent: Lyndon Doble

Date: 2/6/2020

This application must be signed by the person who desires to undertake the proposed activity AND signed by a duly authorized agent (see Block 1, 2, 30). Further, 18 USC Section 1001 provides that: "Whoever, in any manner within the jurisdiction of any department of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both".



**RECEIVED** PLAN SHEET

HOWARD RUDE  
 TIMBER RIVER 2ND ADDITION, LOT 2, BLOCK 2  
 KOOTENAI COUNTY, IDAHO

SCALE: 1" = 80'

DATE: 12/05/2019

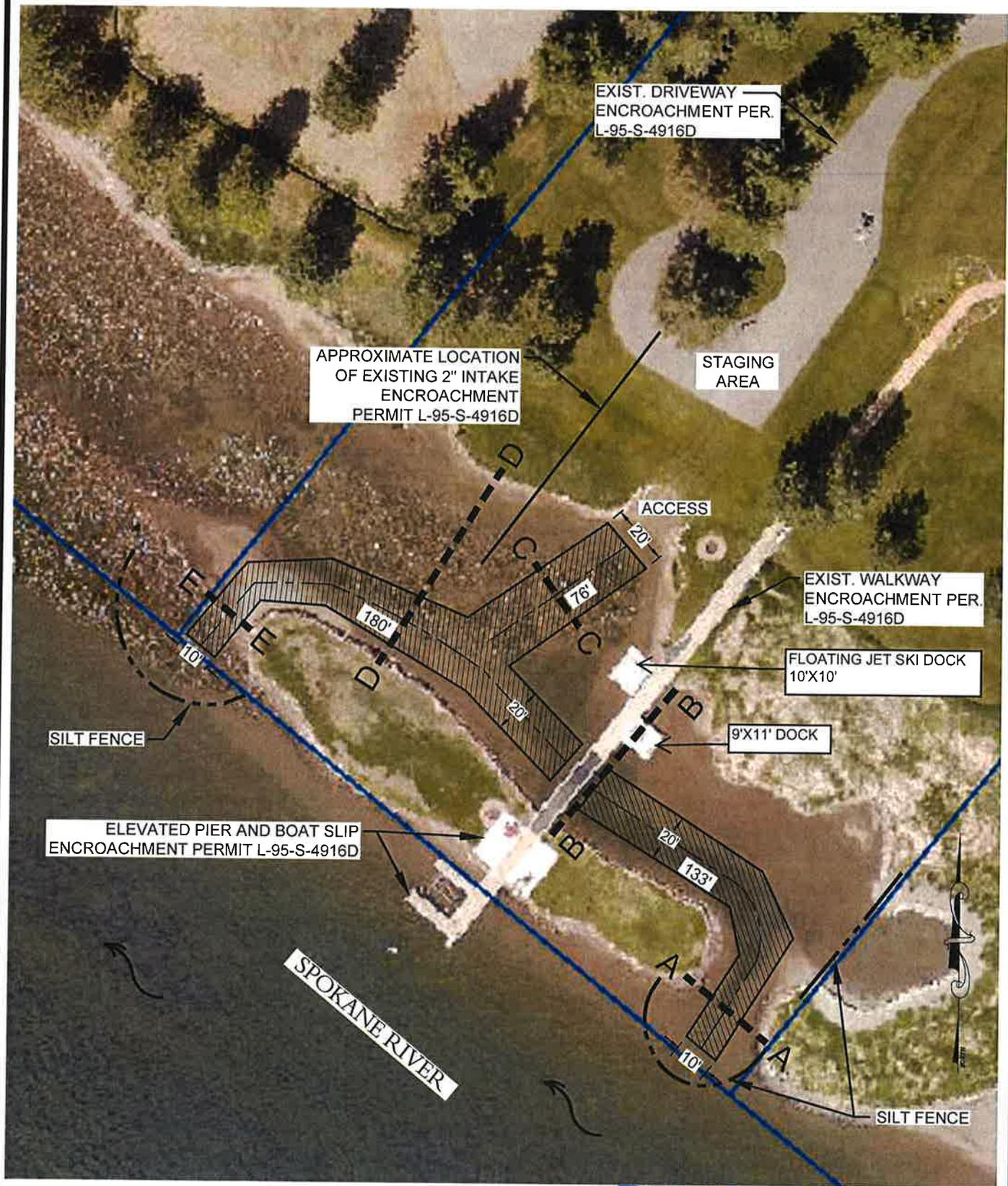
FILE: P424 EXHIBIT.dwg

**FRAME & SMETANA, PA**  
 Consulting Engineers  
 803 North 4th Street, Coeur d'Alene, Idaho, 83814  
 Ph. (208) 664-2121 / Fax: (208) 765-5502 / Email: smetana@roadrunner.com

Stamp: JAN 10 2020  
 Idaho Dept. of Lands  
 Mica Supervisory Area

**FS**

SHEET 2 OF 4



**RECEIVED**

FEB 06 2020

PLAN SHEET

HOWARD RUDE  
 TIMBER RIVER 2ND ADDITION, LOT 2, BLOCK 2  
 KOOTENAI COUNTY, IDAHO

SCALE: 1" = 80'

DATE: 12/05/2019

FILE: P424 EXHIBIT.dwg

**FRAME & SMETANA, PA**  
 Idaho Dept of Land & Water  
 Mica Supervision Area  
 Consulting Engineers

603 North 4th Street, Coeur d'Alene, Idaho, 83814  
 Ph.(208)664-2121/Fax:(208)765-5502/Email:smetana@roadrunner.com

**FS**

SHEET  
 2 OF 4



LOT 1, BLK 1  
TIMBER RIVER  
SECOND ADDITION  
286'

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Idaho Dept. of Lands  
Mica Supervisory Area

PROPERTY LINE  
LOT 2 - BLK 1  
TIMBER RIVER  
SECOND ADDITION

15' WIDE  
DRIVE WAY

140'-0"

6' WIDE

48'  
172'  
124'

SAND  
GRASS  
ABOVE  
WATER  
LINE  
(+2")

LAGOON  
SHALLOW  
WATER  
MUD FLATS

SAND  
GRASS  
ABOVE  
WATER  
LINE  
(+2")

SHALLOW  
WATER  
MUD  
FLATS

SAND ISLAND  
(240' X 39')  
(ABOVE WATER LINE)

BRIDGE

SPOKANE  
RIVER

GLO MEANDER  
LINE  
FLOW

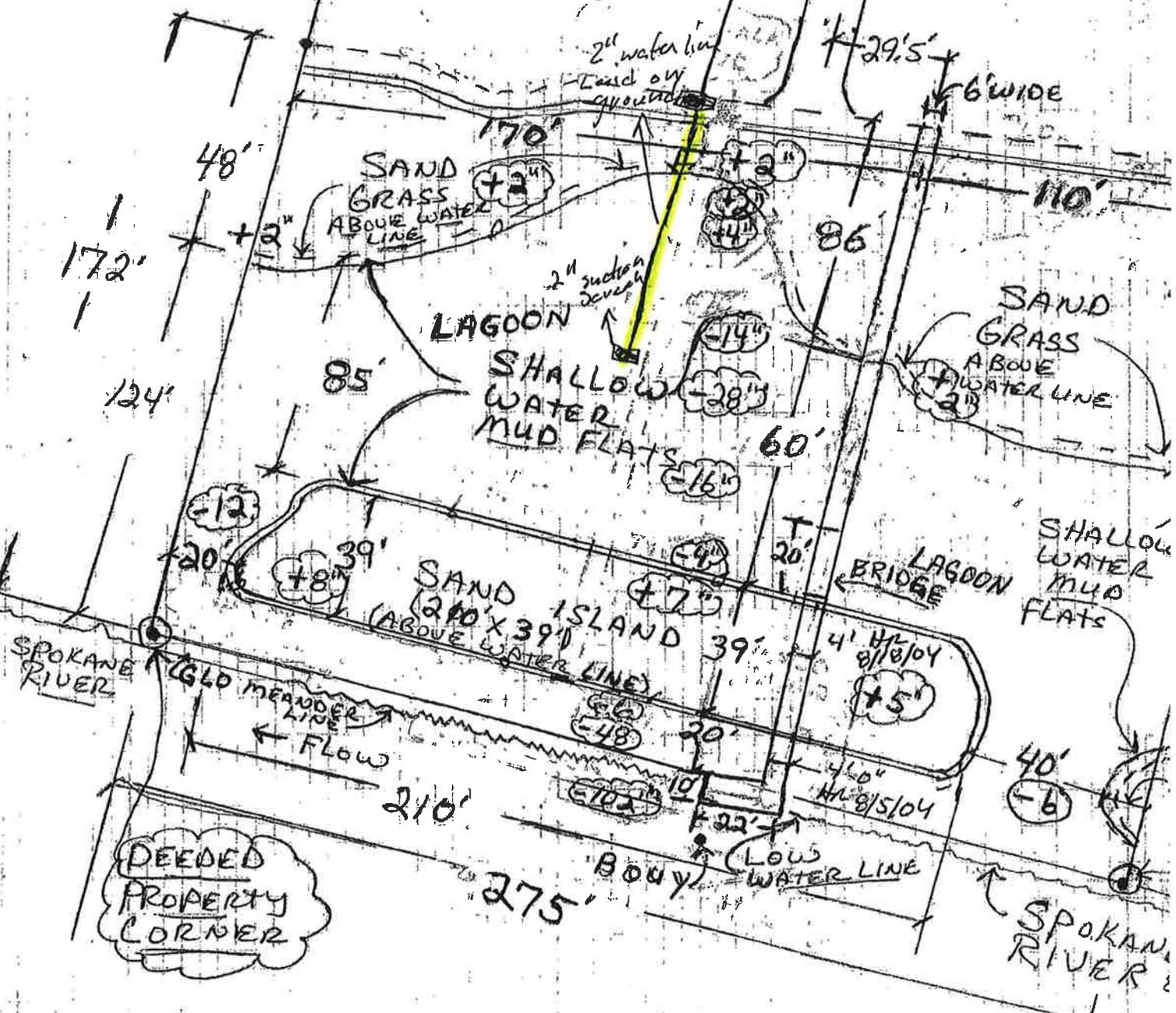
DEEDED  
PROPERTY  
CORNER

210'

275'

BOUY LOW WATER LINE

SPOKANE  
RIVER





Kootenai County, Idaho

Year	1	2	3	4	5	6	7	8	9	10	11	12
2019	1	2	3	4	5	6	7	8	9	10	11	12
2018	1	2	3	4	5	6	7	8	9	10	11	12
2017	1	2	3	4	5	6	7	8	9	10	11	12
2016	1	2	3	4	5	6	7	8	9	10	11	12
2015	1	2	3	4	5	6	7	8	9	10	11	12
2014	1	2	3	4	5	6	7	8	9	10	11	12
2013	1	2	3	4	5	6	7	8	9	10	11	12
2012	1	2	3	4	5	6	7	8	9	10	11	12
2011	1	2	3	4	5	6	7	8	9	10	11	12
2010	1	2	3	4	5	6	7	8	9	10	11	12
2009	1	2	3	4	5	6	7	8	9	10	11	12
2008	1	2	3	4	5	6	7	8	9	10	11	12
2007	1	2	3	4	5	6	7	8	9	10	11	12
2006	1	2	3	4	5	6	7	8	9	10	11	12
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1987	1	2	3	4	5	6	7	8	9	10	11	12
1986	1	2	3	4	5	6	7	8	9	10	11	12
1985	1	2	3	4	5	6	7	8	9	10	11	12
1984	1	2	3	4	5	6	7	8	9	10	11	12
1983	1	2	3	4	5	6	7	8	9	10	11	12
1982	1	2	3	4	5	6	7	8	9	10	11	12
1981	1	2	3	4	5	6	7	8	9	10	11	12
1980	1	2	3	4	5	6	7	8	9	10	11	12

THIS DRAWING IS TO BE USED FOR REFERENCE PURPOSES ONLY. THE COUNTY IS NOT RESPONSIBLE FOR ANY INACCURACIES CONTAINED HEREIN.

Notes:



Map Revisions

- 09/11/09 - JB  
Pin P-4000-008-3100 out to RW 110
- 03/04/15 - TH  
0-4836401-003-A, 004-A (now P-482) amended into City of Peal  
Fee per Ord 128 (15)
- 06/02/16 - ET  
Pin 0-3320-000-019-A (re-described as 1a&2&4&7 (17))
- 06/22/18 - ET  
0-3320-000-055-0 out of 054-A (now 0-119)
- 03/08/19 - TH  
0-2648001-002-B (now P-482) amended into City of Peal Fee per  
Ord 133 (18)
- 01/27/20 - ET  
P-482-001-002-B pinning into INFINITY EDGE ESTATES (20)

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Idaho Dept. of Lands  
Mica Supervisory Area

Plotted areas have been determined by property corners which will require a professional survey to be made. A survey is being conducted by the County Surveyor's Office. The survey is being conducted by the County Surveyor's Office. The survey is being conducted by the County Surveyor's Office.

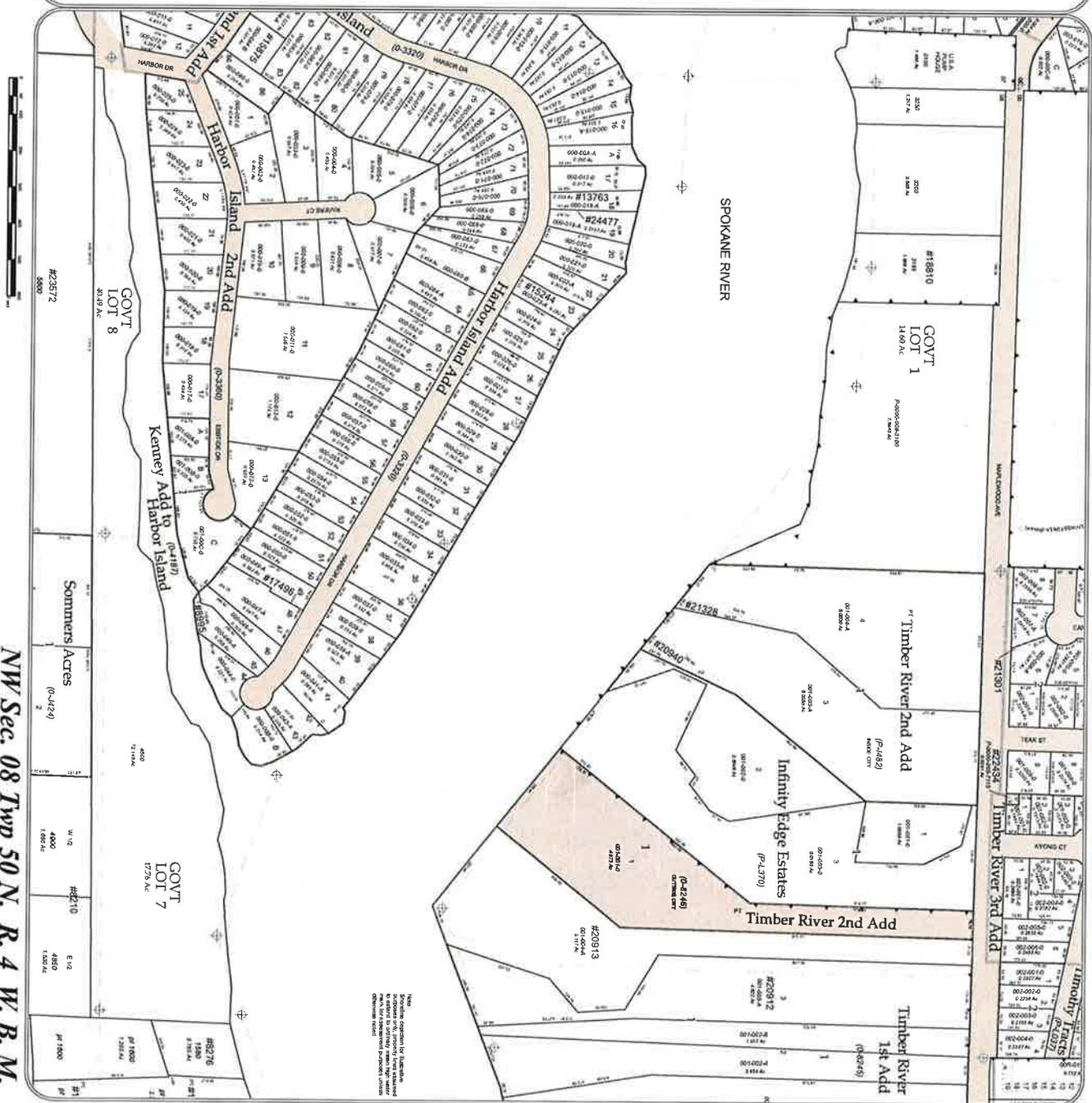
LOCATION OF ROAD SHOWING ARE BASED ON ADDRESSABLE, F. ROAD, RECREATION AND MAY OR MAY NOT BE PUBLIC.

Private Use/Restrictions: Number PIN as assigned in Idaho  
Parcel: Subordinate and Parcel ID# ex. C-310 and C-21-099C  
Rating: PIN + C-310/021-988-C or C-21/021-999C  
Unlisted: Township and Parcel ID# ex. S-2000W-16 and 7800  
Rating: PIN + S-2000W-16-7800 or S-2000W-16-7800

**Legend**

- Tax/Parcels
- ▨ Legal/Leases
- ▭ Plat Boundaries
- City Limits
- Private Roads
- Road RW
- Railroad
- ◆ GCOB Corners
- GCOB Lines

Mapfile: 50N04W08NW



NW Sec. 08 Twp 50 N. R. 4 W. B. M.



# Kootenai County

GeoViewer

Owner

Additional

AIN: 244013

LRSN: 81326

GEO: 2145

Parcel Number: 0-8246-001-001-0

Appr Dist: 2

TCA: 073000

Incorporation: NONE

### Owner Information:

MAPLEWOOD PROPERTY MANAGEMENT LLC  
6426 E MAPLEWOOD AVE  
POST FALLS, ID 83854

### Site Address:

6426 E MAPLEWOOD AVE  
POST FALLS

Legal Description: TIMBER RIVER 2ND ADD, LT 1 BLK 1

BKPG: 1482

Acres: 4.9730 TRS: 504W08NW.PDF

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FEB 06 2020

Idaho Dept. of Lands  
Mica Supervisory Area



**From:** Chantilly.Higbee@deq.idaho.gov  
**Sent:** Friday, December 20, 2019 2:49 PM  
**To:** gordon@doblerengineering.com  
**Cc:** afuson@idl.idaho.gov; Thomas.Herron@deq.idaho.gov  
**Subject:** RE: FW: Notice of Incomplete Dredge Application L95S4916E

Gordon,

As per item 7 on the *Notice of Incomplete App* you sent me, 401 Water Quality Certification falls under Section 401 and 404 of the Clean Water Act. Section 404 (implemented by Army Corps of Engineers) provides authority to issue permits for the discharge of dredged or fill material into waters of the United States. Section 401 (implemented in Idaho by DEQ) requires a 401 Certification be provided to Army Corps showing that the discharge of fill material to waters of the state will comply with Idaho water quality standards. Here is a link to more information: [deq.idaho.gov/water-quality/surface-water/standards/401-certification/](http://deq.idaho.gov/water-quality/surface-water/standards/401-certification/)

DEQ will **not** issue a 401 Water Quality Certification for the project at this time because discharge of fill material is not proposed below the ordinary high water mark. However, DEQ **will** provide comments to Department of Lands through the joint application process.

Feel free to contact me with any questions you have.

Thank you,



**Chantilly Higbee | Surface Water Compliance Officer**  
Idaho Department of Environmental Quality  
2110 Ironwood Parkway  
Coeur d'Alene, Idaho 83814  
Office: (208) 666-4605  
<http://www.deq.idaho.gov/>

*Our mission is to protect human health and the quality of Idaho's air, land, and water.*

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**From:** Gordon Dobler [mailto:gordon@doblerengineering.com]  
**Sent:** Wednesday, December 11, 2019 2:51 PM  
**To:** Chantilly Higbee  
**Subject:** FW: FW: Notice of Incomplete Dredge Application L95S4916E

Chantilly, please see item # 7 on the letter of incompleteness. Thanks.

Gordon Dobler, P.E.  
Dobler Engineering  
208 755-9732

**From:** [Amidy Fuson](mailto:Amidy.Fuson)  
**Sent:** Friday, December 6, 2019 12:22 PM  
**To:** [gordon@doblerengineering.com](mailto:gordon@doblerengineering.com)

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JAN 10 2020

Idaho Dept. of Lands  
Mica Supervisory Area



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# Business Search

Maplewood property management

Advanced Results: 1

Form Info	Status	Filing Date	Agent
<p>MAPLEWOOD PROPERTY MANAGEMENT, LLC (499448) <i>Limited Liability Company (D)</i></p>	Active-Existing	04/01/2016	HOWARD L RUDE

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# Kootenai County

Government

Owner Additional

AIN: 244013 LRSN: 81326 GEO: 2145

Parcel Number: 0-8246-001-001-0

Appr Dist: 2 TCA: 073000

Incorporation: NONE

**Owner Information:**

MAPLEWOOD PROPERTY MANAGEMENT LLC  
6426 E MAPLEWOOD AVE  
POST FALLS, ID 83854

**Site Address:**

6426 E MAPLEWOOD AVE  
POST FALLS

**Legal Description:** TIMBER RIVER 2ND ADD, LT 1 BLK 1

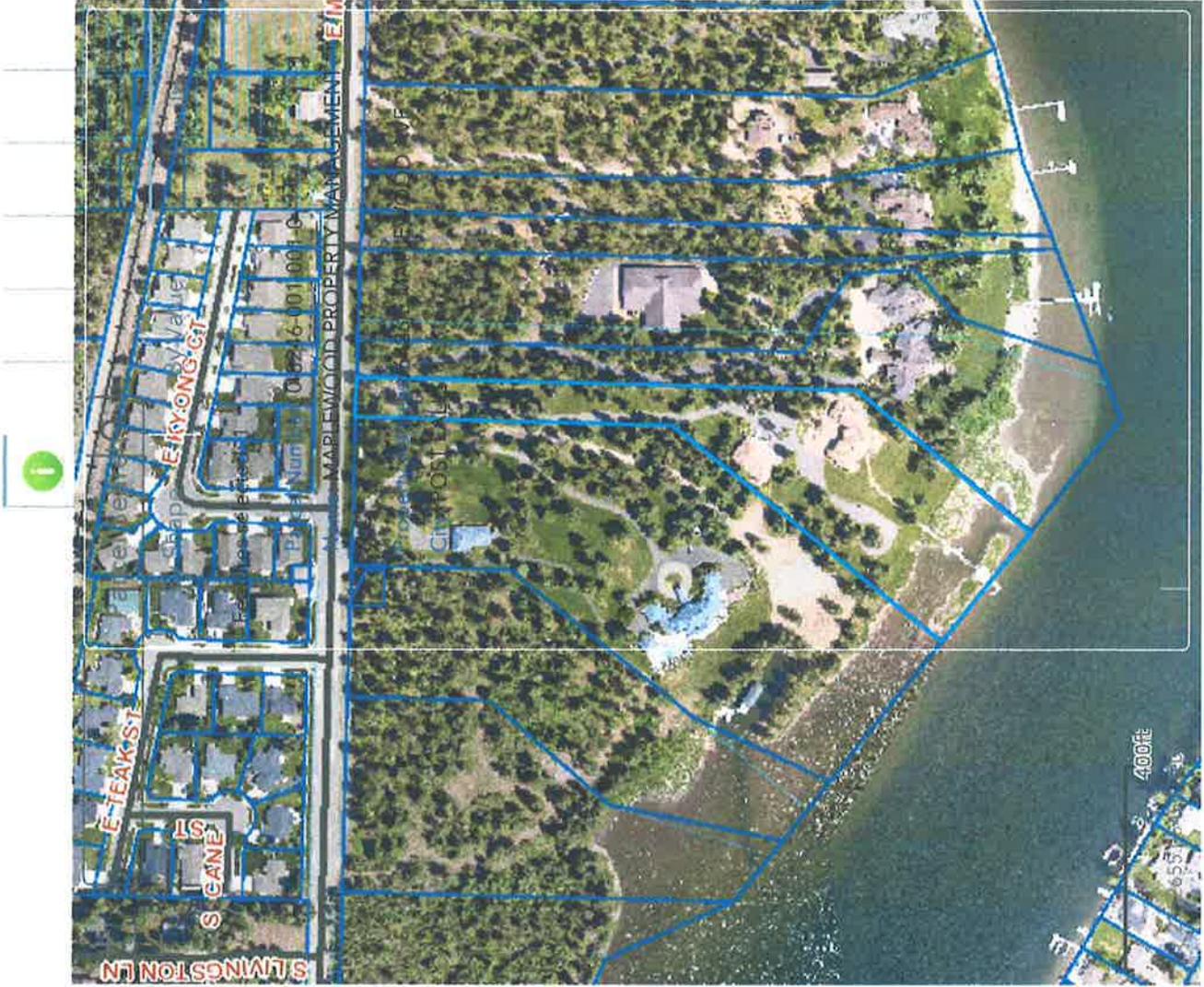
**BKPG:** 1482

**Acres:** 4.9730 TRS: 504W08NW.PDF

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Idaho Dept. of Lands  
Mica Supervisory Area





# Kootenai County

GIS/Mapping

## Owner

## Additional

AIN: 244013    LRSN: 81326    GEO: 2145

Parcel Number: 0-8246-001-001-0

Appr Dist: 2    TCA: 073000

Incorporation: NONE

## Owner Information:

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Legal Description: TIMBER RIVER 2ND ADD, LT 1 BLK 1

BKPG: 1482

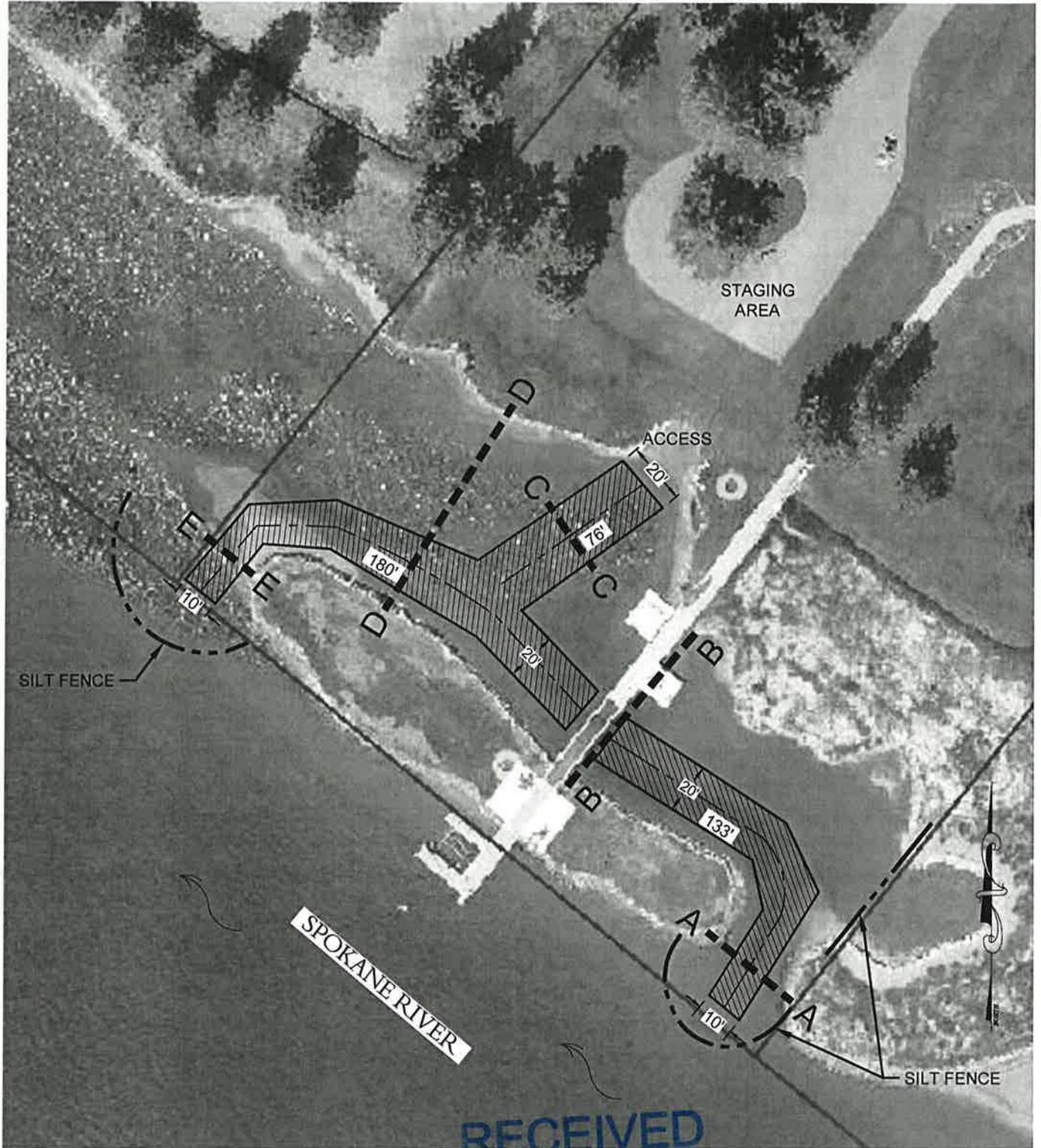
Acres: 4.9730    TRS: 504W08NW.PDF

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Mica Supervisory Area





NOV 26 2019

PLAN SHEET

HOWARD RUDE  
 TIMBER RIVER 2ND ADDITION, LOT 2, BLOCK 2  
 KOOTENAI COUNTY, IDAHO

Idaho Dept. of Lands  
 Mica Supervisory Area

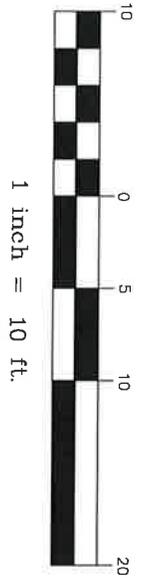
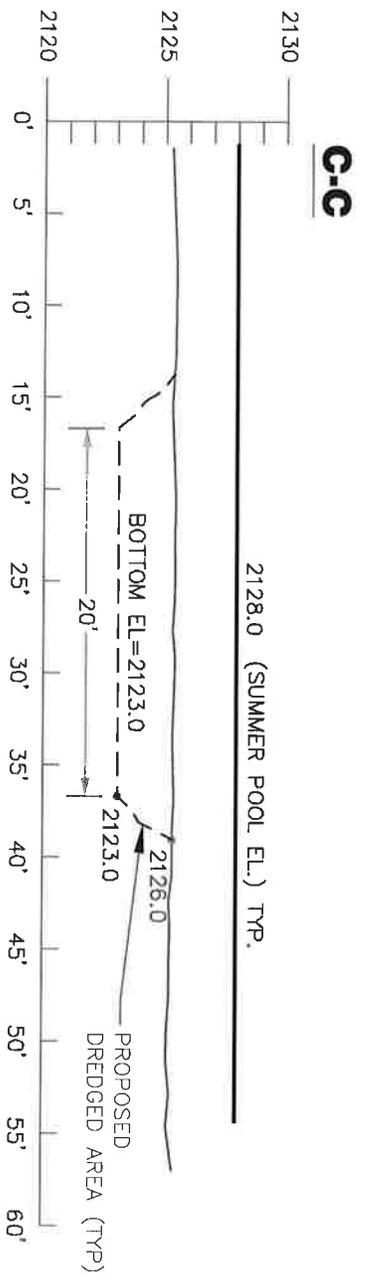
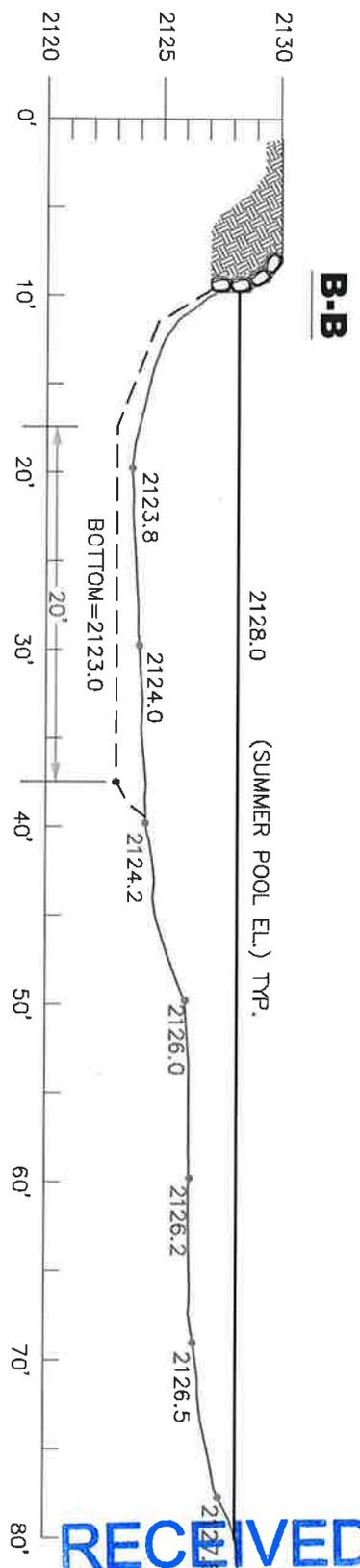
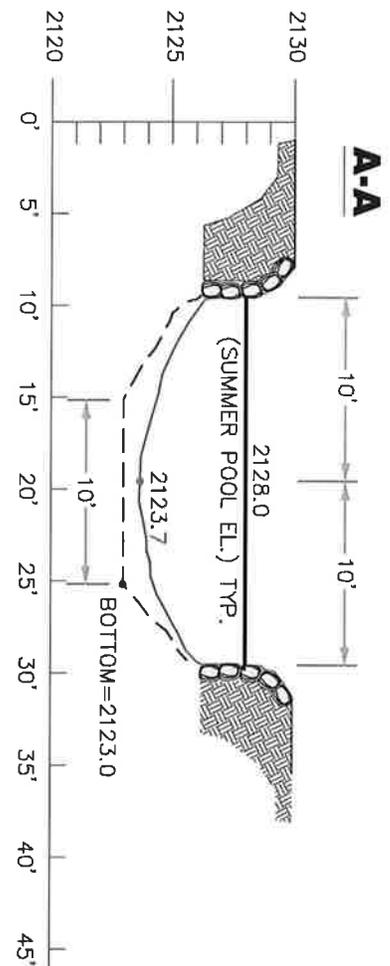
**FRAME & SMETANA, PA**  
 Consulting Engineers

**FS**

SCALE: 1" = 80'    DATE: 11/18/2019    FILE: P424 EXHIBIT.dwg

603 North 4th Street, Coeur d'Alene, Idaho, 83814  
 Ph.(208)664-2121/Fax:(208)765-5502/Email:smetana@roadrunner.com

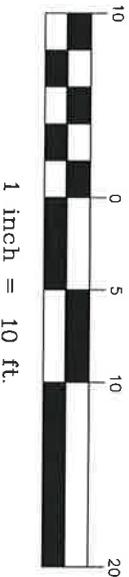
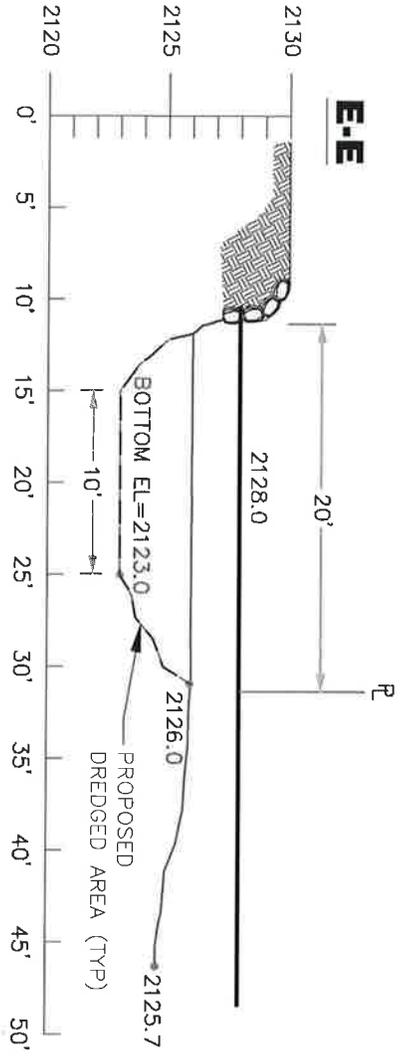
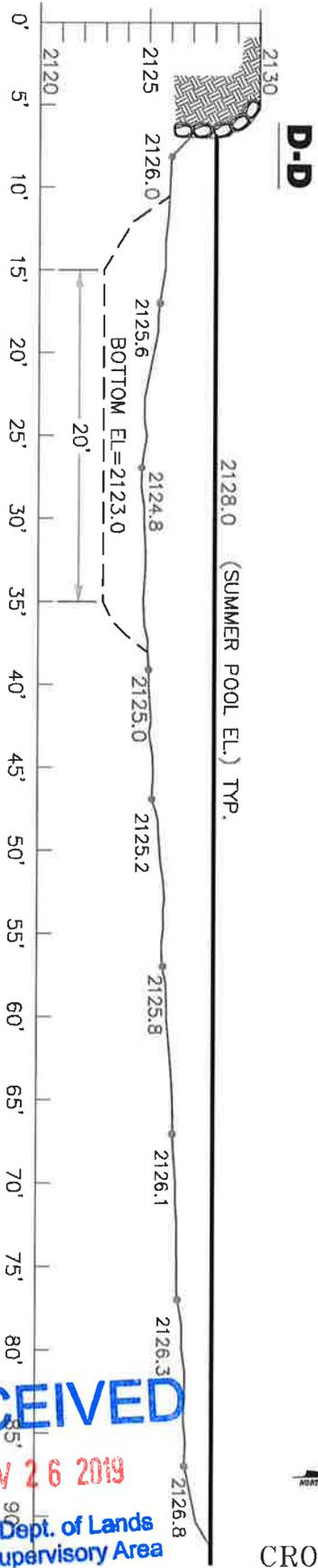
SHEET  
 2 OF 4



**RECEIVED**  
NOV 26 2019

CROSS SECTION SHEET

HOWARD RUDE TIMBER RIVER 2ND ADDITION, LOT 2, BLOCK 2 KOOTENAI COUNTY, IDAHO		Idaho Dept. of Lands Mica Supervisory Area		<b>FRAME &amp; SMETANA, PA</b> Consulting Engineers 603 North 4th Street, Coeur d'Alene, Idaho, 83814 Ph.(208)664-2121/Fax:(208)765-5502/Email:smetana@roadrunner.com		 SHEET 3 OF 4	
SCALE: 1" = 80'	DATE: 11/18/2019	FILE: P424 EXHIBIT.dwg					



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NOV 26 2019

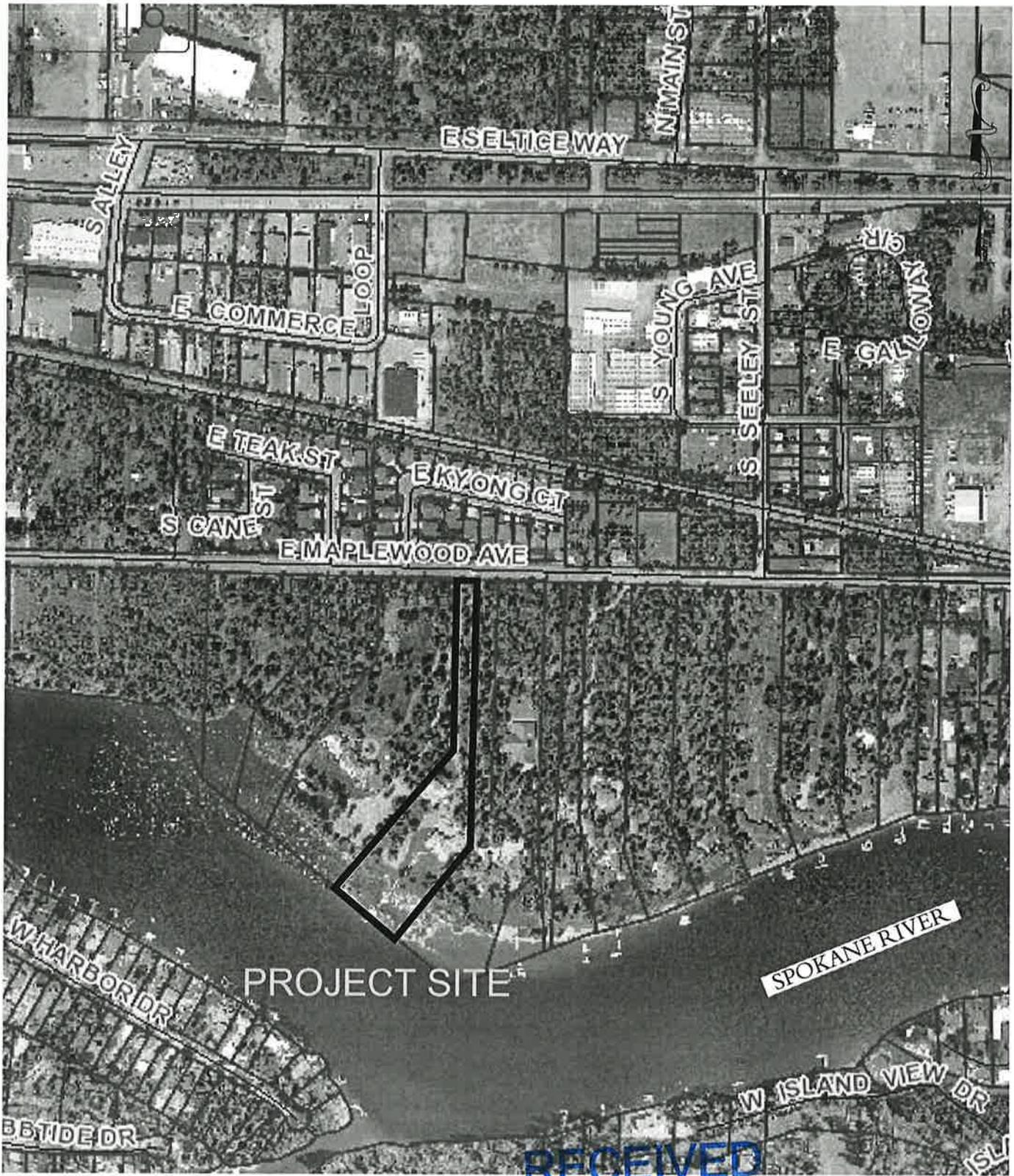
Idaho Dept. of Lands  
Mica Supervisory Area

  
 CROSS SECTION SHEET

HOWARD RUDE  
 TIMBER RIVER 2ND ADDITION, LOT 2, BLOCK 2  
 KOOTENAI COUNTY, IDAHO  
 SCALE: 1" = 80'  
 DATE: 11/18/2019  
 FILE: P424 EXHIBIT.dwg

**FRAME & SMETANA, PA**  
 Consulting Engineers  
 603 North 4th Street, Coeur d'Alene, Idaho, 83814  
 Ph.(208)664-2121/Fax:(208)765-5502/Email:smetana@roadrunner.com

**FS**  
 SHEET  
 4 OF 4



LAT - 47° 41' 52"  
 LONG - 116° 51' 52"

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VICINITY MAP

HOWARD RUDE  
 TIMBER RIVER 2ND ADDITION, LOT 2, BLOCK 2  
 KOOTENAI COUNTY, IDAHO

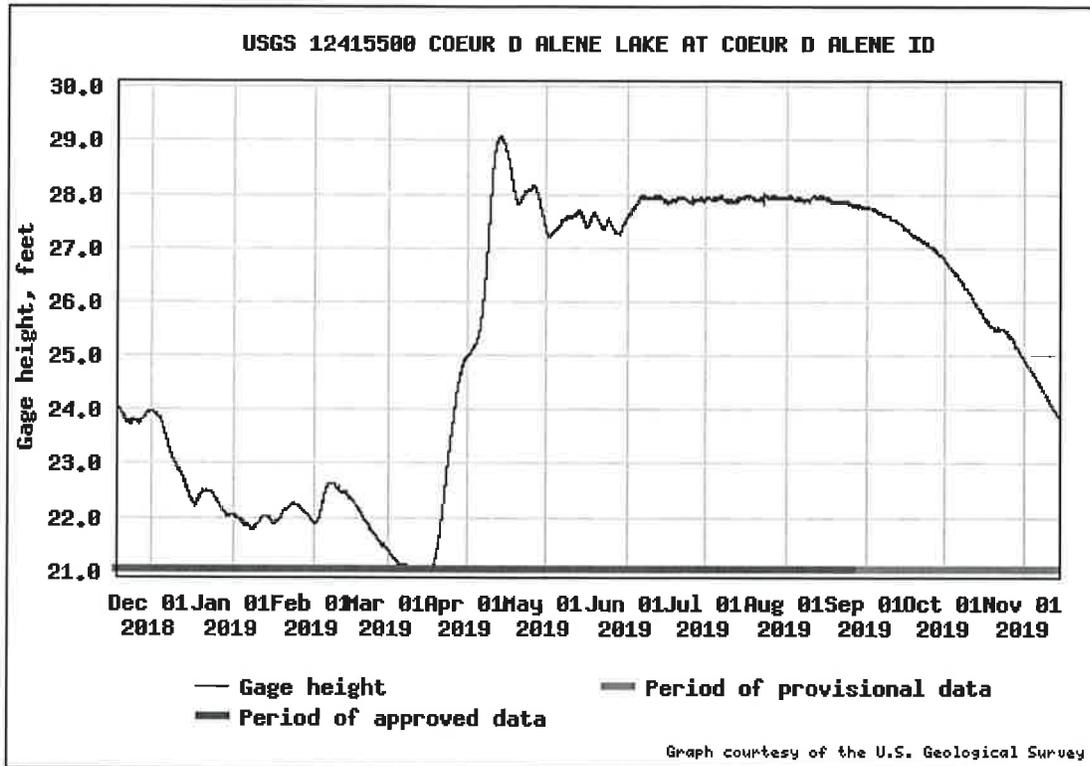
Idaho Dept. of Larch  
**FRAME & SMETANA, PA**  
 Consulting Engineers

**FS**

SCALE: 1" = 80'    DATE: 11/18/2019    FILE: P424 EXHIBIT.dwg

603 North 4th Street, Coeur d'Alene, Idaho, 83814  
 Ph.(208)664-2121/Fax:(208)765-5502/Email:smetana@roadrunner.com

SHEET  
 1 OF 4



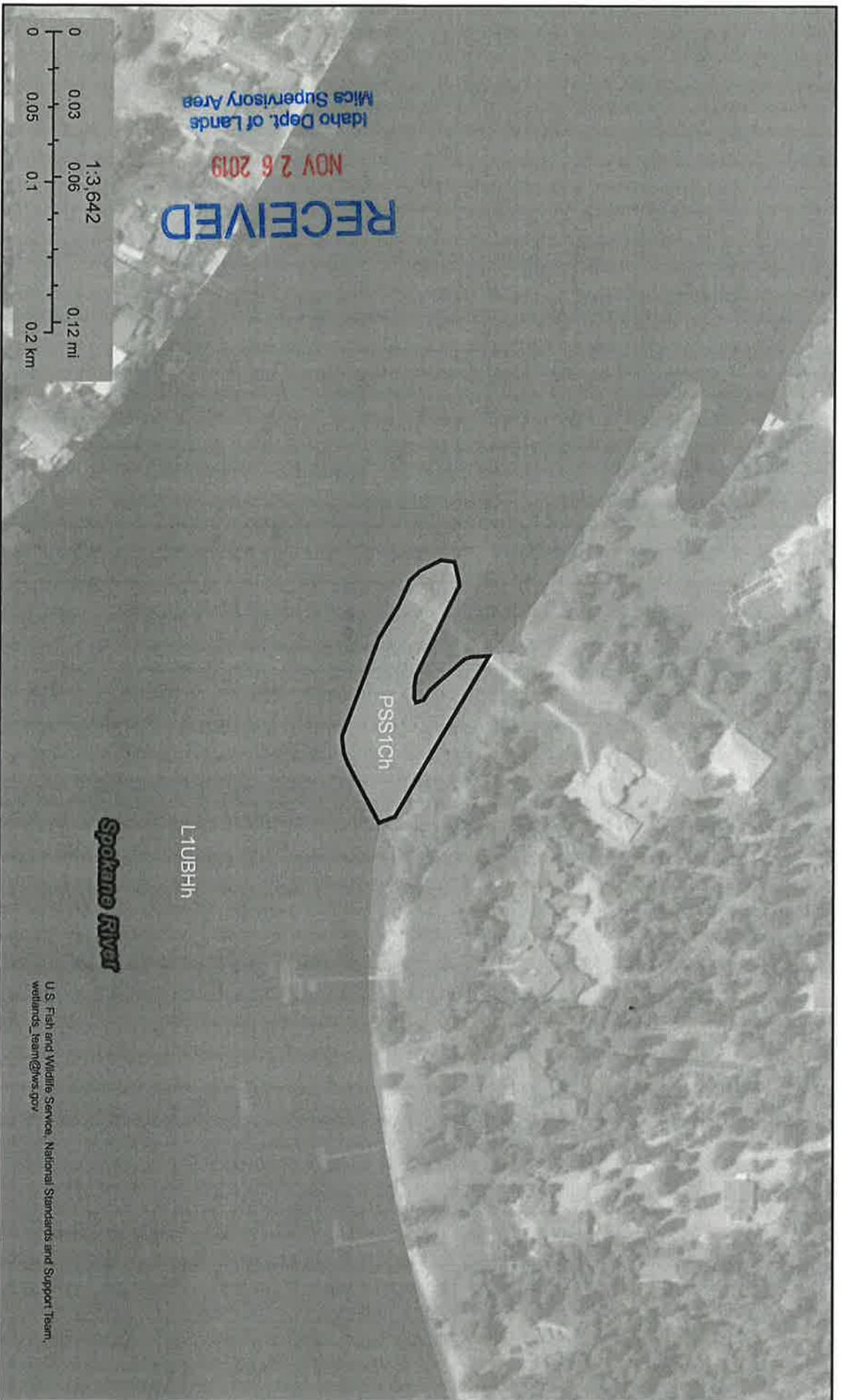
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# Rude Residence



November 8, 2019

### Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

U.S. Fish and Wildlife Service, National Standards and Support Team,  
wetlands\_team@fws.gov

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Classification code: PSS1Ch

System **Palustrine (P)** : The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

Class **Scrub-Shrub (SS)** : Includes areas dominated by woody vegetation less than 6 m (20 feet) tall. The species include true shrubs, young trees (saplings), and trees or shrubs that are small or stunted because of environmental conditions.

Subclass **Broad-Leaved Deciduous (1)** : Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season; e.g., black ash (*Fraxinus nigra*).

Water Regime **Seasonally Flooded (C)** : Surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface.

Special Modifier **Diked/Impounded (h)** : These wetlands have been created or modified by a man-made barrier or dam that obstructs the inflow or outflow of water.

**For more information on wetland classification codes click here.**

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**LIMITED ENVIRONMENTAL SITE EVALUATION**

**RUDE RESIDENCE  
6426 MAPLEWOOD AVENUE  
POST FALLS, IDAHO**

**ALLWEST PROJECT NO. 119-210E**



**DATE: JUNE 18, 2019**

***Prepared for:***

**MR. HOWARD RUDE  
6426 MAPLEWOOD AVENUE  
POST FALLS, IDAHO 83854**

***Prepared by:***

**ALLWEST Testing and Engineering, Inc.  
690 West Capstone Court  
Hayden, Idaho 83535**





Construction Materials Testing & Special Inspection  
Geotechnical Engineering  
Environmental Consulting  
Non-Destructive Testing  
Welder Certification

June 18, 2019

Mr. Howard Rude  
6426 Maplewood Avenue  
Post Falls, Idaho 83854

RE: **Limited Environmental Site Evaluation  
Soil Sampling & Analysis Report  
6426 Maplewood Avenue  
Post Falls, Idaho  
ALLWEST Project No. 119-210E**

Mr. Rude:

ALLWEST Testing and Engineering, Inc. (ALLWEST) is pleased to submit this Limited Environmental Site Evaluation (LESE) report for the above referenced Site. This LESE was performed in general accordance with ALLWEST's Proposal dated May 23, 2019.

We appreciate the opportunity to perform these services for you. Please contact us at (208)762-4721 if you have questions or need any additional services.

Sincerely,

ALLWEST Testing and Engineering, Inc.

Prepared by:

Brett A. Zimmerman  
Environmental Professional

Reviewed by:

Cole Warrick, P.E.  
Environmental Professional

690 W. Capstone Ct., Hayden, ID 83835  
• Phone: (208) 762-4721 • Fax: (208) 762-0942  
Hayden, ID • Lewiston, ID • Meridian, ID • Spokane Valley, WA  
[www.allwesttesting.com](http://www.allwesttesting.com)

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Rude Residence  
Post Falls, Idaho

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2.0 FIELD ACTIVITIES .....	2
3.0 LABORATORY ANALYTICAL METHODS .....	3
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5.0 SUMMARY OF FINDINGS, OPINIONS AND RECOMMENDATIONS .....	3
6.0 LIMITATIONS .....	4

**LIST OF APPENDICES**

Appendix A: Figure A-2 – Boring & Sample Location Map

Appendix B: Site Photographs

Appendix C: Laboratory Analytical Reports and Chain-of-Custody

Appendix D: Credentials

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## LIMITED ENVIRONMENTAL SITE EVALUATION

**RUDE RESIDENCE  
6426 MAPLEWOOD AVENUE  
POST FALLS, IDAHO**

### 1.0 INTRODUCTION

#### 1.1 Site Description

The Site is located at 6426 Maplewood Avenue in Post Falls, Idaho. The Site is currently developed with a residential structure. A Site Vicinity Map is included as Figure A-2 is in Appendix A.

#### 1.2 Background

The purpose of this LESE was to determine if the soils located within the proposed dredging area have been negatively impacted by historic industrial mining upstream of Lake Coeur d' Alene and the Spokane River. Written authorization was provided by Mr. Howard Rude (current property owner).

#### 1.3 Additional Scope Limitations

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, nondetectable or not present during these services, and we cannot represent the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this LESE. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, Evaluations or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

ALLWEST's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. ALLWEST makes no warranties, either express or implied, regarding the findings, conclusions or recommendations. Please note ALLWEST does not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report. These LESE services were performed in accordance with the scope of work agreed with you, our client, as reflected in our proposal and were not restricted by ASTM E1903-11.



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## 1.4 Reliance

This report has been prepared for the exclusive use of Mr. Howard Rude, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the site) is prohibited without the express written authorization of Howard Rude and ALLWEST. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal, LESE report, and ALLWEST's Terms and Conditions. The limitation of liability defined in the terms and conditions is the aggregate limit of ALLWEST's liability to the client and all relying parties unless otherwise agreed in writing.

## 2.0 FIELD ACTIVITIES

### 2.1 Subsurface Exploration and Conditions

ALLWEST's field activities were conducted on May 23, 2019 by Mr. Brett Zimmerman, Environmental Professional. As part of the approved scope of services, two hand-augured borings (BH-1 and BH-2) were completed at the Site to obtain samples of the subsurface soils for analytical testing of potential contaminants. The borings were advanced to depths of approximately five feet below existing grade.

The approximate locations of the borings and sampling locations in relation to the pertinent structures and general site boundaries are shown on Figure A-2 (Appendix A).

### 2.2 Soil Sampling

ALLWEST's soil sampling program involved submitting selected soil samples from the borings for laboratory analysis. Soil samples were collected based on the soil conditions and field professional's judgment. Soil samples were field screened using sensory methods and a photoionization detector (PID) to detect the presence of volatile organic compounds (VOCs). ALLWEST collected two soil samples from each of the soil borings from the zone exhibiting the highest PID readings. If, based on these observations, no elevated PID readings were observed; the sample was collected from the capillary fringe zone, from the interval exhibiting a change in lithology, from the bottom of the boring, or from the interval of most likely environmental impact as determined in the field by the sampling professional.

Sampling equipment was cleaned prior to beginning the project and before beginning each soil boring. Sampling equipment was cleaned using an Alconox® wash and potable water rinse prior to the beginning of the project and before collecting each soil sample. Soil cuttings and equipment cleaning water generated during the field activities were hauled off-site by ALLWEST. Borings were immediately backfilled upon completion. Soil samples were collected and placed in laboratory prepared glassware, sealed with custody tape and placed on ice in a cooler. The sample coolers and completed chain-of-custody forms were relinquished to ESC Lab Sciences in Mt. Juliet, Tennessee on a normal turnaround.



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### 3.0 LABORATORY ANALYTICAL METHODS

The soil samples collected were analyzed by the following laboratory methods per the Idaho Department of Environmental Quality (IDEQ) applicable regulatory standards.

Analysis	Sample Type	No. of Samples	Laboratory Method
SVOCs	Soil	4	8270C
PAHs	Soil	4	8270C SIM
RCRA8 Metals	Soil	4	6010B

The executed chain-of-custody forms and laboratory data analytical reports are provided in Appendix C.

### 4.0 DATA EVALUATION

The four soil samples collected from the explorations did exhibit concentrations of RCRA 8 Metals, VOCs and PAHs above the laboratory method detection limits, however the VOCs and PAHs detected were reported at concentrations below their respective IDEQ RUSLs and EPA RSLs. RCRA 8 Metals were detected at levels below their respective EPA RSLs with the exception of Arsenic which was reported at levels exceeding the RSLs in samples (S-1, S-2, S-3 and S-4) and Lead which was detected at levels exceeding the EPA RSLs in sample (S-4). Although the Arsenic levels were reported at concentrations above the EPA RSLs, they are within the average background levels reported in Kootenai County, Idaho (10.295 mg/kg). Lead levels were detected at concentrations above the EPA RSLs (800 mg/kg) in sample (S-4). The elevated lead concentration are most likely the result of the historical industrial mining up-stream from Lake Coeur d'Alene and the Spokane River. The lead contaminated soil will have to be disposed of at a facility licensed to receive the material. The results of the RCRA 8 Metals laboratory analysis are summarized in the following table:

**RCRA8 Metals Detected**

Sample No.	Depth ft.(bgs)	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Silver
S-1/BH-1	1	11.3	105	5.64	18.6	601	0.149	0.686
S-2/BH-1	4	16.3	75.7	8.22	12.2	316	0.0561	0.316
S-3/BH-2	2	13.2	69.7	2.56	12.4	108	0.0190	
S-4/BH-2	3	3.94	104	5.65	19.2	1190	0.174	1.21
<b>EPA-RSL (Mg/kg)</b>		<b>3</b>	<b>220,000</b>	<b>980</b>	<b>NE</b>	<b>800</b>	<b>46</b>	<b>5800</b>

RSL- Regional Screening Level

NE- Not Established

**BOLD** Type-Values exceeding the RSLs

### 5.0 SUMMARY OF FINDINGS, OPINIONS AND RECOMMENDATIONS

The lab results for the soil samples collected from the explorations are summarized below:

- Arsenic which was reported at levels exceeding the EPA RSLs. Although the Arsenic levels (5.82 mg/kg -10.1 mg/kg) were reported at concentrations above



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the EPA RSLs they are below the USGS background levels (10.295 mg/kg) reported in Kootenai County. Based on the average background concentrations of Arsenic, the soil samples are below the background level and are therefore most likely naturally occurring and do not require further action.

- Lead levels detected in sample (S-4) were reported at concentrations above the EPA RSLs. The elevated lead concentration are most likely the result of the historical industrial mining up-stream from Lake Coeur d'Alene and the Spokane River.
- Contaminated soils removed during the proposed dredging operations should be disposed at a facility licensed to receive the material.

## 6.0 LIMITATIONS

The findings, opinions and recommendations provided in this report are based on a limited number of explorations at the approximate locations and depths indicated. Sampling was limited to accessible areas. Subsurface conditions may vary from those encountered at specific subsurface exploration locations or during other surveys, tests, assessments, evaluations or exploratory services; the data, interpretations, findings, and recommendations are based solely upon data obtained at the time and within the scope of these services.



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**APPENDIX A**

**Figure A-2 – Boring & Sample Location Map**

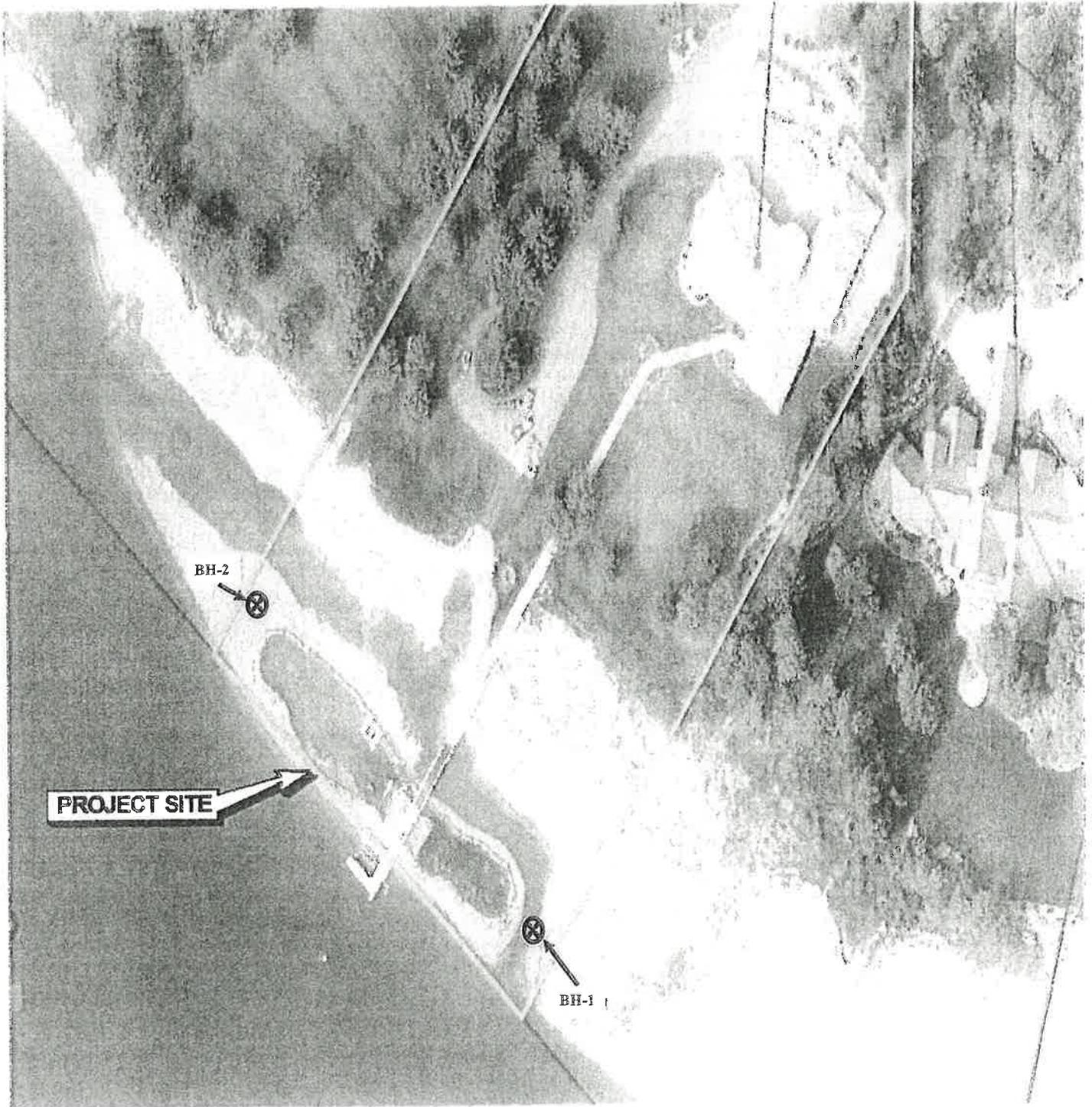


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Mica Supervisory Area**

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REFERENCE: Google Earth  
2019

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS  
NOT INTENDED FOR CONSTRUCTION PURPOSES

FIGURE 2-A—SITE DIAGRAM

Rude Residence

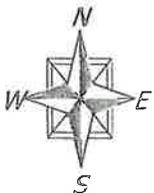
6426 Maplewood Avenue

Post Falls, Idaho

Client Name: Howard Rude

Project No.: 119-210E

Date: JUNE 19, 2019



Hayden, Idaho

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**APPENDIX B**  
**Site Photographs**



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Bureau of Land Management

Construction Materials Testing & Special Inspection  
Geotechnical Engineering  
Environmental Consulting  
Non-Destructive Testing  
Welder Certification & Training

Site Photographs  
Site Name: Rude Residence  
ALLWEST Project No. 119-210E  
Date Taken: May 23, 2019



Photo #1 View looking at Borehole-1



Photo #2 View looking at Borehole-2

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Mica Supervisory Area

**APPENDIX C**

**Chain-of-Custody Forms and Laboratory Data Analytical Reports**



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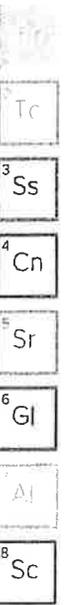
Idaho Dept. of Lands  
District Supervisory Area

# ANALYTICAL REPORT

June 05, 2019

## AllWest Testing & Eng. - Idaho

Sample Delivery Group: L1104035  
Samples Received: 05/31/2019  
Project Number: 119-210E  
Description:  
Site: RUDE PROPERTY  
Report To: Brett Zimmerman  
690 W. Capstone Court  
Hayden, ID 83835

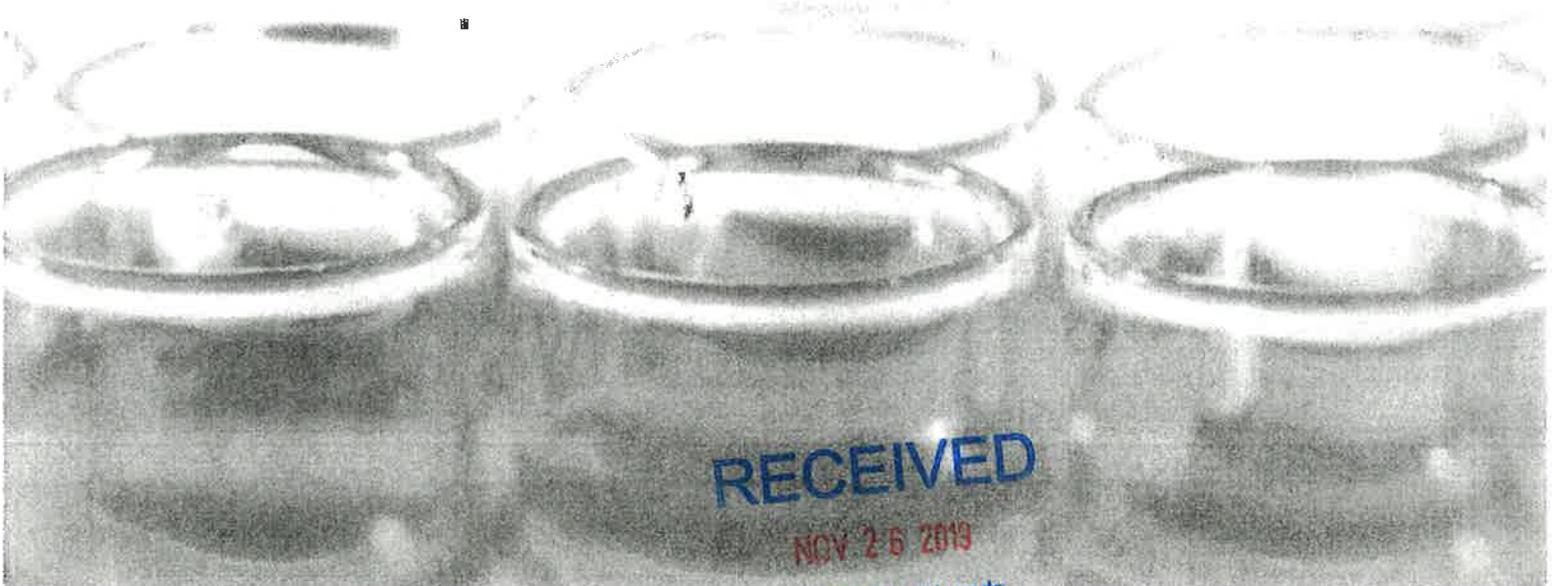


Entire Report Reviewed By:

**[Preliminary Report]**

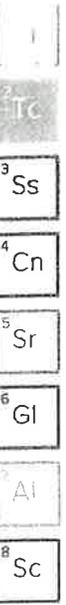
Chris Ward  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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S-2/BH-1 L1104035-02	7
S-3/BH-2 L1104035-03	9
S-4/BH-2 L1104035-04	11
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Al: Accreditations & Locations	14
Sc: Sample Chain of Custody	15



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# SAMPLE SUMMARY

ONE LAB NATIONWIDE



S-1/BH-1 L1104035-01 Solid						
		Collected by		Collected date/time	Received date/time	
		Brett Zimmerman		05/30/19 07:15	05/31/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1290579	1	06/04/19 13:30	06/04/19 13:40	KBC	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1289486	1	06/02/19 09:36	06/05/19 10:48	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1290203	1	05/30/19 07:15	06/03/19 15:23	DWR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1289906	1	06/02/19 20:10	06/03/19 03:07	AAT	Mt. Juliet, TN

S-2/BH-1 L1104035-02 Solid						
		Collected by		Collected date/time	Received date/time	
		Brett Zimmerman		05/30/19 07:30	05/31/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1290579	1	06/04/19 13:30	06/04/19 13:40	KBC	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1289486	1	06/02/19 09:36	06/05/19 10:50	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1290203	1	05/30/19 07:30	06/03/19 15:44	DWR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1289906	1	06/02/19 20:10	06/03/19 03:29	AAT	Mt. Juliet, TN

S-3/BH-2 L1104035-03 Solid						
		Collected by		Collected date/time	Received date/time	
		Brett Zimmerman		05/30/19 08:05	05/31/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1290579	1	06/04/19 13:30	06/04/19 13:40	KBC	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1289486	1	06/02/19 09:36	06/05/19 10:58	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1290203	1	05/30/19 08:05	06/03/19 16:04	DWR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1289906	1	06/02/19 20:10	06/03/19 03:50	AAT	Mt. Juliet, TN

S-4/BH-2 L1104035-04 Solid						
		Collected by		Collected date/time	Received date/time	
		Brett Zimmerman		05/30/19 08:20	05/31/19 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1290579	1	06/04/19 13:30	06/04/19 13:40	KBC	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1289486	1	06/02/19 09:36	06/05/19 11:01	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1290203	1	05/30/19 08:20	06/03/19 16:24	DWR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1289906	1	06/02/19 20:10	06/03/19 04:11	AAT	Mt. Juliet, TN



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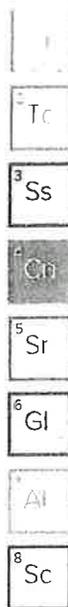
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All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

**[Preliminary Report]**

Chris Ward  
Project Manager



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Collected date/time: 05/30/19 07:15

L1104035

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.9		1	06/04/2019 13:40	WG1290579

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Arsenic	11.3		0.549	2.39	1	06/05/2019 10:48	WG1289486
Barium	105		0.203	0.596	1	06/05/2019 10:48	WG1289486
Cadmium	5.64		0.0835	0.596	1	06/05/2019 10:48	WG1289486
Chromium	18.6		0.167	1.19	1	06/05/2019 10:48	WG1289486
Lead	601		0.227	0.596	1	06/05/2019 10:48	WG1289486
Selenium	U		0.739	2.39	1	06/05/2019 10:48	WG1289486
Silver	0.686	J	0.143	1.19	1	06/05/2019 10:48	WG1289486

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0163	0.0298	1	06/03/2019 15:23	WG1290203
Acrylonitrile	U		0.00227	0.0149	1	06/03/2019 15:23	WG1290203
Benzene	U		0.000477	0.00119	1	06/03/2019 15:23	WG1290203
Bromobenzene	U		0.00125	0.0149	1	06/03/2019 15:23	WG1290203
Bromodichloromethane	U		0.000940	0.00298	1	06/03/2019 15:23	WG1290203
Bromoform	U		0.00713	0.0298	1	06/03/2019 15:23	WG1290203
Bromomethane	U		0.00441	0.0149	1	06/03/2019 15:23	WG1290203
n-Butylbenzene	U		0.00458	0.0149	1	06/03/2019 15:23	WG1290203
sec-Butylbenzene	U		0.00302	0.0149	1	06/03/2019 15:23	WG1290203
tert-Butylbenzene	U		0.00185	0.00596	1	06/03/2019 15:23	WG1290203
Carbon tetrachloride	U		0.00129	0.00596	1	06/03/2019 15:23	WG1290203
Chlorobenzene	U		0.000683	0.00298	1	06/03/2019 15:23	WG1290203
Chlorodibromomethane	U		0.000537	0.00298	1	06/03/2019 15:23	WG1290203
Chloroethane	U		0.00129	0.00596	1	06/03/2019 15:23	WG1290203
Chloroform	U		0.000495	0.00298	1	06/03/2019 15:23	WG1290203
Chloromethane	U		0.00166	0.0149	1	06/03/2019 15:23	WG1290203
2-Chlorotoluene	U		0.00110	0.00298	1	06/03/2019 15:23	WG1290203
4-Chlorotoluene	U	J4	0.00135	0.00596	1	06/03/2019 15:23	WG1290203
1,2-Dibromo-3-Chloropropane	U		0.00608	0.0298	1	06/03/2019 15:23	WG1290203
1,2-Dibromoethane	U		0.000626	0.00298	1	06/03/2019 15:23	WG1290203
Dibromomethane	U		0.00119	0.00596	1	06/03/2019 15:23	WG1290203
1,2-Dichlorobenzene	U		0.00173	0.00596	1	06/03/2019 15:23	WG1290203
1,3-Dichlorobenzene	U		0.00203	0.00596	1	06/03/2019 15:23	WG1290203
1,4-Dichlorobenzene	U		0.00235	0.00596	1	06/03/2019 15:23	WG1290203
Dichlorodifluoromethane	U		0.000975	0.00298	1	06/03/2019 15:23	WG1290203
1,1-Dichloroethane	U		0.000686	0.00298	1	06/03/2019 15:23	WG1290203
1,2-Dichloroethane	U		0.000566	0.00298	1	06/03/2019 15:23	WG1290203
1,1-Dichloroethene	U		0.000596	0.00298	1	06/03/2019 15:23	WG1290203
cis-1,2-Dichloroethene	U		0.000823	0.00298	1	06/03/2019 15:23	WG1290203
trans-1,2-Dichloroethene	U		0.00171	0.00596	1	06/03/2019 15:23	WG1290203
1,2-Dichloropropane	U		0.00151	0.00596	1	06/03/2019 15:23	WG1290203
1,1-Dichloropropene	U		0.000835	0.00298	1	06/03/2019 15:23	WG1290203
1,3-Dichloropropane	U		0.00209	0.00596	1	06/03/2019 15:23	WG1290203
cis-1,3-Dichloropropene	U		0.000809	0.00298	1	06/03/2019 15:23	WG1290203
trans-1,3-Dichloropropene	U		0.00182	0.00596	1	06/03/2019 15:23	WG1290203
2,2-Dichloropropane	U		0.000946	0.00298	1	06/03/2019 15:23	WG1290203
Di-isopropyl ether	U		0.000417	0.00119	1	06/03/2019 15:23	WG1290203
Ethylbenzene	U		0.000632	0.00298	1	06/03/2019 15:23	WG1290203
Hexachloro-1,3-butadiene	U		0.0151	0.0298	1	06/03/2019 15:23	WG1290203

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Isopropylbenzene	U		0.00103	0.00298	1	06/03/2019 15:23	WG1290203
p-Isopropyltoluene	U		0.00278	0.00596	1	06/03/2019 15:23	WG1290203
2-Butanone (MEK)	0.0218	<u>B</u>	0.0149	0.0298	1	06/03/2019 15:23	WG1290203
Methylene Chloride	U		0.00792	0.0298	1	06/03/2019 15:23	WG1290203
4-Methyl-2-pentanone (MIBK)	U		0.0119	0.0298	1	06/03/2019 15:23	WG1290203
Methyl tert-butyl ether	U		0.000352	0.00119	1	06/03/2019 15:23	WG1290203
Naphthalene	0.00481	<u>J</u>	0.00372	0.0149	1	06/03/2019 15:23	WG1290203
n-Propylbenzene	U		0.00141	0.00596	1	06/03/2019 15:23	WG1290203
Styrene	U		0.00326	0.0149	1	06/03/2019 15:23	WG1290203
1,1,1,2-Tetrachloroethane	U		0.000596	0.00298	1	06/03/2019 15:23	WG1290203
1,1,2,2-Tetrachloroethane	U		0.000465	0.00298	1	06/03/2019 15:23	WG1290203
1,1,2-Trichlorotrifluoroethane	U		0.000805	0.00298	1	06/03/2019 15:23	WG1290203
Tetrachloroethene	U		0.000835	0.00298	1	06/03/2019 15:23	WG1290203
Toluene	0.00340	<u>J</u>	0.00149	0.00596	1	06/03/2019 15:23	WG1290203
1,2,3-Trichlorobenzene	U		0.000745	0.00298	1	06/03/2019 15:23	WG1290203
1,2,4-Trichlorobenzene	U		0.00575	0.0149	1	06/03/2019 15:23	WG1290203
1,1,1-Trichloroethane	U		0.000328	0.00298	1	06/03/2019 15:23	WG1290203
1,1,2-Trichloroethane	U		0.00105	0.00298	1	06/03/2019 15:23	WG1290203
Trichloroethene	U		0.000477	0.00119	1	06/03/2019 15:23	WG1290203
Trichlorofluoromethane	U		0.000596	0.00298	1	06/03/2019 15:23	WG1290203
1,2,3-Trichloropropane	U		0.00608	0.0149	1	06/03/2019 15:23	WG1290203
1,2,4-Trimethylbenzene	U		0.00138	0.00596	1	06/03/2019 15:23	WG1290203
1,2,3-Trimethylbenzene	U		0.00137	0.00596	1	06/03/2019 15:23	WG1290203
1,3,5-Trimethylbenzene	U		0.00129	0.00596	1	06/03/2019 15:23	WG1290203
Vinyl chloride	U		0.000814	0.00298	1	06/03/2019 15:23	WG1290203
Xylenes, Total	U		0.00570	0.00775	1	06/03/2019 15:23	WG1290203
(S) Toluene-d8	101			75.0-131		06/03/2019 15:23	WG1290203
(S) o,o,a-Trifluorotoluene	5.31	<u>J2</u>		80.0-120		06/03/2019 15:23	WG1290203
(S) 4-Bromofluorobenzene	103			67.0-138		06/03/2019 15:23	WG1290203
(S) 1,2-Dichloroethane-d4	86.3			70.0-130		06/03/2019 15:23	WG1290203



Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.00165	<u>J</u>	0.000716	0.00716	1	06/03/2019 03:07	WG1289906
Acenaphthene	U		0.000716	0.00716	1	06/03/2019 03:07	WG1289906
Acenaphthylene	0.00156	<u>J</u>	0.000716	0.00716	1	06/03/2019 03:07	WG1289906
Benzo(a)anthracene	0.00301	<u>J</u>	0.000716	0.00716	1	06/03/2019 03:07	WG1289906
Benzo(a)pyrene	0.00349	<u>J</u>	0.000716	0.00716	1	06/03/2019 03:07	WG1289906
Benzo(b)fluoranthene	0.00640	<u>J</u>	0.000716	0.00716	1	06/03/2019 03:07	WG1289906
Benzo(g,h,i)perylene	0.00439	<u>J</u>	0.000716	0.00716	1	06/03/2019 03:07	WG1289906
Benzo(k)fluoranthene	0.00171	<u>J</u>	0.000716	0.00716	1	06/03/2019 03:07	WG1289906
Chrysene	0.00570	<u>J</u>	0.000716	0.00716	1	06/03/2019 03:07	WG1289906
Dibenz(a,h)anthracene	U		0.000716	0.00716	1	06/03/2019 03:07	WG1289906
Fluoranthene	0.0173		0.000716	0.00716	1	06/03/2019 03:07	WG1289906
Fluorene	U		0.000716	0.00716	1	06/03/2019 03:07	WG1289906
Indeno(1,2,3-cd)pyrene	0.00297	<u>J</u>	0.000716	0.00716	1	06/03/2019 03:07	WG1289906
Naphthalene	0.00866	<u>J</u>	0.00239	0.0239	1	06/03/2019 03:07	WG1289906
Phenanthrene	0.0120		0.000716	0.00716	1	06/03/2019 03:07	WG1289906
Pyrene	0.00708	<u>J</u>	0.000716	0.00716	1	06/03/2019 03:07	WG1289906
1-Methylnaphthalene	U		0.00239	0.0239	1	06/03/2019 03:07	WG1289906
2-Methylnaphthalene	U		0.00239	0.0239	1	06/03/2019 03:07	WG1289906
2-Chloronaphthalene	U		0.00239	0.0239	1	06/03/2019 03:07	WG1289906
(S) Nitrobenzene-d5	83.5			14.0-149		06/03/2019 03:07	WG1289906
(S) 2-Fluorobiphenyl	91.5			34.0-125		06/03/2019 03:07	WG1289906
(S) p-Terphenyl-d14	90.5			23.0-120		06/03/2019 03:07	WG1289906

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	86.8		1	06/04/2019 13:40	WG1290579

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Arsenic	16.3		0.530	2.30	1	06/05/2019 10:50	WG1289486
Barium	75.7		0.196	0.576	1	06/05/2019 10:50	WG1289486
Cadmium	8.22		0.0806	0.576	1	06/05/2019 10:50	WG1289486
Chromium	12.2		0.161	1.15	1	06/05/2019 10:50	WG1289486
Lead	316		0.219	0.576	1	06/05/2019 10:50	WG1289486
Selenium	U		0.714	2.30	1	06/05/2019 10:50	WG1289486
Silver	0.316	J	0.138	1.15	1	06/05/2019 10:50	WG1289486

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Acetone	U		0.0158	0.0288	1	06/03/2019 15:44	WG1290203
Acrylonitrile	U		0.00219	0.0144	1	06/03/2019 15:44	WG1290203
Benzene	U		0.000461	0.00115	1	06/03/2019 15:44	WG1290203
Bromobenzene	U		0.00121	0.0144	1	06/03/2019 15:44	WG1290203
Bromodichloromethane	U		0.000908	0.00288	1	06/03/2019 15:44	WG1290203
Bromoform	U		0.00689	0.0288	1	06/03/2019 15:44	WG1290203
Bromomethane	U		0.00426	0.0144	1	06/03/2019 15:44	WG1290203
n-Butylbenzene	U		0.00442	0.0144	1	06/03/2019 15:44	WG1290203
sec-Butylbenzene	U		0.00291	0.0144	1	06/03/2019 15:44	WG1290203
tert-Butylbenzene	U		0.00179	0.00576	1	06/03/2019 15:44	WG1290203
Carbon tetrachloride	U		0.00124	0.00576	1	06/03/2019 15:44	WG1290203
Chlorobenzene	U		0.000660	0.00288	1	06/03/2019 15:44	WG1290203
Chlorodibromomethane	U		0.000518	0.00288	1	06/03/2019 15:44	WG1290203
Chloroethane	U		0.00124	0.00576	1	06/03/2019 15:44	WG1290203
Chloroform	U		0.000478	0.00288	1	06/03/2019 15:44	WG1290203
Chloromethane	U		0.00160	0.0144	1	06/03/2019 15:44	WG1290203
2-Chlorotoluene	U		0.00106	0.00288	1	06/03/2019 15:44	WG1290203
4-Chlorotoluene	U	J4	0.00130	0.00576	1	06/03/2019 15:44	WG1290203
1,2-Dibromo-3-Chloropropane	U		0.00588	0.0288	1	06/03/2019 15:44	WG1290203
1,2-Dibromoethane	U		0.000605	0.00288	1	06/03/2019 15:44	WG1290203
Dibromomethane	U		0.00115	0.00576	1	06/03/2019 15:44	WG1290203
1,2-Dichlorobenzene	U		0.00167	0.00576	1	06/03/2019 15:44	WG1290203
1,3-Dichlorobenzene	U		0.00196	0.00576	1	06/03/2019 15:44	WG1290203
1,4-Dichlorobenzene	U		0.00227	0.00576	1	06/03/2019 15:44	WG1290203
Dichlorodifluoromethane	U		0.000942	0.00288	1	06/03/2019 15:44	WG1290203
1,1-Dichloroethane	U		0.000662	0.00288	1	06/03/2019 15:44	WG1290203
1,2-Dichloroethane	U		0.000547	0.00288	1	06/03/2019 15:44	WG1290203
1,1-Dichloroethene	U		0.000576	0.00288	1	06/03/2019 15:44	WG1290203
cis-1,2-Dichloroethene	U		0.000795	0.00288	1	06/03/2019 15:44	WG1290203
trans-1,2-Dichloroethene	U		0.00165	0.00576	1	06/03/2019 15:44	WG1290203
1,2-Dichloropropane	U		0.00146	0.00576	1	06/03/2019 15:44	WG1290203
1,1-Dichloropropene	U		0.000806	0.00288	1	06/03/2019 15:44	WG1290203
1,3-Dichloropropene	U		0.00202	0.00576	1	06/03/2019 15:44	WG1290203
cis-1,3-Dichloropropene	U		0.000781	0.00288	1	06/03/2019 15:44	WG1290203
trans-1,3-Dichloropropene	U		0.00176	0.00576	1	06/03/2019 15:44	WG1290203
2,2-Dichloropropane	U		0.000914	0.00288	1	06/03/2019 15:44	WG1290203
Di-isopropyl ether	U		0.000403	0.00115	1	06/03/2019 15:44	WG1290203
Ethylbenzene	U		0.000611	0.00288	1	06/03/2019 15:44	WG1290203
Hexachloro-1,3-butadiene	U		0.0146	0.0288	1	06/03/2019 15:44	WG1290203



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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Isopropylbenzene	U		0.000994	0.00288	1	06/03/2019 15:44	WG1290203
p-Isopropyltoluene	U		0.00268	0.00576	1	06/03/2019 15:44	WG1290203
2-Butanone (MEK)	0.0185	<u>B</u>	0.0144	0.0288	1	06/03/2019 15:44	WG1290203
Methylene Chloride	U		0.00765	0.0288	1	06/03/2019 15:44	WG1290203
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0288	1	06/03/2019 15:44	WG1290203
Methyl tert-butyl ether	U		0.000340	0.00115	1	06/03/2019 15:44	WG1290203
Naphthalene	U		0.00359	0.0144	1	06/03/2019 15:44	WG1290203
n-Propylbenzene	U		0.00136	0.00576	1	06/03/2019 15:44	WG1290203
Styrene	U		0.00315	0.0144	1	06/03/2019 15:44	WG1290203
1,1,1,2-Tetrachloroethane	U		0.000576	0.00288	1	06/03/2019 15:44	WG1290203
1,1,2,2-Tetrachloroethane	U		0.000449	0.00288	1	06/03/2019 15:44	WG1290203
1,1,2-Trichlorotrifluoroethane	U		0.000778	0.00288	1	06/03/2019 15:44	WG1290203
Tetrachloroethene	U		0.000806	0.00288	1	06/03/2019 15:44	WG1290203
Toluene	U		0.00144	0.00576	1	06/03/2019 15:44	WG1290203
1,2,3-Trichlorobenzene	U		0.000720	0.00288	1	06/03/2019 15:44	WG1290203
1,2,4-Trichlorobenzene	U		0.00555	0.0144	1	06/03/2019 15:44	WG1290203
1,1,1-Trichloroethane	U		0.000317	0.00288	1	06/03/2019 15:44	WG1290203
1,1,2-Trichloroethane	U		0.00102	0.00288	1	06/03/2019 15:44	WG1290203
Trichloroethene	U		0.000461	0.00115	1	06/03/2019 15:44	WG1290203
Trichlorofluoromethane	U		0.000576	0.00288	1	06/03/2019 15:44	WG1290203
1,2,3-Trichloropropane	U		0.00588	0.0144	1	06/03/2019 15:44	WG1290203
1,2,4-Trimethylbenzene	U		0.00134	0.00576	1	06/03/2019 15:44	WG1290203
1,2,3-Trimethylbenzene	U		0.00132	0.00576	1	06/03/2019 15:44	WG1290203
1,3,5-Trimethylbenzene	U		0.00124	0.00576	1	06/03/2019 15:44	WG1290203
Vinyl chloride	U		0.000787	0.00288	1	06/03/2019 15:44	WG1290203
Xylenes, Total	U		0.00551	0.00749	1	06/03/2019 15:44	WG1290203
(S) Toluene-d8	102			75.0-131		06/03/2019 15:44	WG1290203
(S) o,o,a-Trifluorotoluene	5.52	<u>J2</u>		80.0-120		06/03/2019 15:44	WG1290203
(S) 4-Bromofluorobenzene	105			67.0-138		06/03/2019 15:44	WG1290203
(S) 1,2-Dichloroethane-d4	86.0			70.0-130		06/03/2019 15:44	WG1290203

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000691	0.00691	1	06/03/2019 03:29	WG1289906
Acenaphthene	U		0.000691	0.00691	1	06/03/2019 03:29	WG1289906
Acenaphthylene	U		0.000691	0.00691	1	06/03/2019 03:29	WG1289906
Benzo(a)anthracene	U		0.000691	0.00691	1	06/03/2019 03:29	WG1289906
Benzo(a)pyrene	U		0.000691	0.00691	1	06/03/2019 03:29	WG1289906
Benzo(b)fluoranthene	0.00109	<u>J</u>	0.000691	0.00691	1	06/03/2019 03:29	WG1289906
Benzo(g,h,i)perylene	U		0.000691	0.00691	1	06/03/2019 03:29	WG1289906
Benzo(k)fluoranthene	U		0.000691	0.00691	1	06/03/2019 03:29	WG1289906
Chrysene	0.00124	<u>J</u>	0.000691	0.00691	1	06/03/2019 03:29	WG1289906
Dibenz(a,h)anthracene	U		0.000691	0.00691	1	06/03/2019 03:29	WG1289906
Fluoranthene	0.00465	<u>J</u>	0.000691	0.00691	1	06/03/2019 03:29	WG1289906
Fluorene	U		0.000691	0.00691	1	06/03/2019 03:29	WG1289906
Indeno(1,2,3-cd)pyrene	U		0.000691	0.00691	1	06/03/2019 03:29	WG1289906
Naphthalene	0.00267	<u>J</u>	0.00230	0.0230	1	06/03/2019 03:29	WG1289906
Phenanthrene	0.00233	<u>J</u>	0.000691	0.00691	1	06/03/2019 03:29	WG1289906
Pyrene	0.00134	<u>J</u>	0.000691	0.00691	1	06/03/2019 03:29	WG1289906
1-Methylnaphthalene	U		0.00230	0.0230	1	06/03/2019 03:29	WG1289906
2-Methylnaphthalene	0.00255	<u>J</u>	0.00230	0.0230	1	06/03/2019 03:29	WG1289906
2-Chloronaphthalene	U		0.00230	0.0230	1	06/03/2019 03:29	WG1289906
(S) Nitrobenzene-d5	71.9			14.0-149		06/03/2019 03:29	WG1289906
(S) 2-Fluorobiphenyl	69.1			34.0-125		06/03/2019 03:29	WG1289906
(S) p-Terphenyl-d14	72.9			23.0-120		06/03/2019 03:29	WG1289906

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Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	87.2		1	06/04/2019 13:40	WG1290579

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	13.2		0.528	2.29	1	06/05/2019 10:58	WG1289486
Barium	69.7		0.195	0.573	1	06/05/2019 10:58	WG1289486
Cadmium	2.56		0.0803	0.573	1	06/05/2019 10:58	WG1289486
Chromium	12.4		0.161	1.15	1	06/05/2019 10:58	WG1289486
Lead	108		0.218	0.573	1	06/05/2019 10:58	WG1289486
Selenium	U		0.711	2.29	1	06/05/2019 10:58	WG1289486
Silver	U		0.138	1.15	1	06/05/2019 10:58	WG1289486

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0157	0.0287	1	06/03/2019 16:04	WG1290203
Acrylonitrile	U		0.00218	0.0143	1	06/03/2019 16:04	WG1290203
Benzene	U		0.000459	0.00115	1	06/03/2019 16:04	WG1290203
Bromobenzene	U		0.00120	0.0143	1	06/03/2019 16:04	WG1290203
Bromodichloromethane	U		0.000904	0.00287	1	06/03/2019 16:04	WG1290203
Bromoform	U		0.00686	0.0287	1	06/03/2019 16:04	WG1290203
Bromomethane	U		0.00424	0.0143	1	06/03/2019 16:04	WG1290203
n-Butylbenzene	U		0.00440	0.0143	1	06/03/2019 16:04	WG1290203
sec-Butylbenzene	U		0.00290	0.0143	1	06/03/2019 16:04	WG1290203
tert-Butylbenzene	U		0.00178	0.00573	1	06/03/2019 16:04	WG1290203
Carbon tetrachloride	U		0.00124	0.00573	1	06/03/2019 16:04	WG1290203
Chlorobenzene	U		0.000657	0.00287	1	06/03/2019 16:04	WG1290203
Chlorodibromomethane	U		0.000516	0.00287	1	06/03/2019 16:04	WG1290203
Chloroethane	U		0.00124	0.00573	1	06/03/2019 16:04	WG1290203
Chloroform	U		0.000476	0.00287	1	06/03/2019 16:04	WG1290203
Chloromethane	U		0.00159	0.0143	1	06/03/2019 16:04	WG1290203
2-Chlorotoluene	U		0.00106	0.00287	1	06/03/2019 16:04	WG1290203
4-Chlorotoluene	U	J4	0.00130	0.00573	1	06/03/2019 16:04	WG1290203
1,2-Dibromo-3-Chloropropane	U		0.00585	0.0287	1	06/03/2019 16:04	WG1290203
1,2-Dibromoethane	U		0.000602	0.00287	1	06/03/2019 16:04	WG1290203
Dibromomethane	U		0.00115	0.00573	1	06/03/2019 16:04	WG1290203
1,2-Dichlorobenzene	U		0.00166	0.00573	1	06/03/2019 16:04	WG1290203
1,3-Dichlorobenzene	U		0.00195	0.00573	1	06/03/2019 16:04	WG1290203
1,4-Dichlorobenzene	U		0.00226	0.00573	1	06/03/2019 16:04	WG1290203
Dichlorodifluoromethane	U		0.000938	0.00287	1	06/03/2019 16:04	WG1290203
1,1-Dichloroethane	U		0.000659	0.00287	1	06/03/2019 16:04	WG1290203
1,2-Dichloroethane	U		0.000545	0.00287	1	06/03/2019 16:04	WG1290203
1,1-Dichloroethene	U		0.000573	0.00287	1	06/03/2019 16:04	WG1290203
cis-1,2-Dichloroethene	U		0.000791	0.00287	1	06/03/2019 16:04	WG1290203
trans-1,2-Dichloroethene	U		0.00164	0.00573	1	06/03/2019 16:04	WG1290203
1,2-Dichloropropane	U		0.00146	0.00573	1	06/03/2019 16:04	WG1290203
1,1-Dichloropropene	U		0.000803	0.00287	1	06/03/2019 16:04	WG1290203
1,3-Dichloropropane	U		0.00201	0.00573	1	06/03/2019 16:04	WG1290203
cis-1,3-Dichloropropene	U		0.000778	0.00287	1	06/03/2019 16:04	WG1290203
trans-1,3-Dichloropropene	U		0.00175	0.00573	1	06/03/2019 16:04	WG1290203
2,2-Dichloropropane	U		0.000909	0.00287	1	06/03/2019 16:04	WG1290203
Di-isopropyl ether	U		0.000401	0.00115	1	06/03/2019 16:04	WG1290203
Ethylbenzene	U		0.000608	0.00287	1	06/03/2019 16:04	WG1290203
Hexachloro-1,3-butadiene	U		0.0146	0.0287	1	06/03/2019 16:04	WG1290203



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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Isopropylbenzene	U		0.000990	0.00287	1	06/03/2019 16:04	WG1290203
p-Isopropyltoluene	U		0.00267	0.00573	1	06/03/2019 16:04	WG1290203
2-Butanone (MEK)	0.0181	<u>B J</u>	0.0143	0.0287	1	06/03/2019 16:04	WG1290203
Methylene Chloride	U		0.00762	0.0287	1	06/03/2019 16:04	WG1290203
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0287	1	06/03/2019 16:04	WG1290203
Methyl tert-butyl ether	U		0.000338	0.00115	1	06/03/2019 16:04	WG1290203
Naphthalene	U		0.00358	0.0143	1	06/03/2019 16:04	WG1290203
n-Propylbenzene	U		0.00135	0.00573	1	06/03/2019 16:04	WG1290203
Styrene	U		0.00313	0.0143	1	06/03/2019 16:04	WG1290203
1,1,1,2-Tetrachloroethane	U		0.000573	0.00287	1	06/03/2019 16:04	WG1290203
1,1,2,2-Tetrachloroethane	U		0.000447	0.00287	1	06/03/2019 16:04	WG1290203
1,1,2-Trichlorotrifluoroethane	U		0.000774	0.00287	1	06/03/2019 16:04	WG1290203
Tetrachloroethene	U		0.000803	0.00287	1	06/03/2019 16:04	WG1290203
Toluene	0.00183	<u>J</u>	0.00143	0.00573	1	06/03/2019 16:04	WG1290203
1,2,3-Trichlorobenzene	U		0.000717	0.00287	1	06/03/2019 16:04	WG1290203
1,2,4-Trichlorobenzene	U		0.00553	0.0143	1	06/03/2019 16:04	WG1290203
1,1,1-Trichloroethane	U		0.000315	0.00287	1	06/03/2019 16:04	WG1290203
1,1,2-Trichloroethane	U		0.00101	0.00287	1	06/03/2019 16:04	WG1290203
Trichloroethene	U		0.000459	0.00115	1	06/03/2019 16:04	WG1290203
Trichlorofluoromethane	U		0.000573	0.00287	1	06/03/2019 16:04	WG1290203
1,2,3-Trichloropropane	U		0.00585	0.0143	1	06/03/2019 16:04	WG1290203
1,2,4-Trimethylbenzene	U		0.00133	0.00573	1	06/03/2019 16:04	WG1290203
1,2,3-Trimethylbenzene	U		0.00132	0.00573	1	06/03/2019 16:04	WG1290203
1,3,5-Trimethylbenzene	U		0.00124	0.00573	1	06/03/2019 16:04	WG1290203
Vinyl chloride	U		0.000783	0.00287	1	06/03/2019 16:04	WG1290203
Xylenes, Total	U		0.00548	0.00745	1	06/03/2019 16:04	WG1290203
(S) Toluene-d8	103			75.0-131		06/03/2019 16:04	WG1290203
(S) a,a,a-Trifluorotoluene	4.97	<u>J2</u>		80.0-120		06/03/2019 16:04	WG1290203
(S) 4-Bromofluorobenzene	103			67.0-138		06/03/2019 16:04	WG1290203
(S) 1,2-Dichloroethane-d4	88.4			70.0-130		06/03/2019 16:04	WG1290203



Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000688	0.00688	1	06/03/2019 03:50	WG1289906
Acenaphthene	U		0.000688	0.00688	1	06/03/2019 03:50	WG1289906
Acenaphthylene	U		0.000688	0.00688	1	06/03/2019 03:50	WG1289906
Benzo(a)anthracene	0.00108	<u>J</u>	0.000688	0.00688	1	06/03/2019 03:50	WG1289906
Benzo(a)pyrene	0.00178	<u>J</u>	0.000688	0.00688	1	06/03/2019 03:50	WG1289906
Benzo(b)fluoranthene	0.00239	<u>J</u>	0.000688	0.00688	1	06/03/2019 03:50	WG1289906
Benzo(g,h,i)perylene	0.0115	<u>J</u>	0.000688	0.00688	1	06/03/2019 03:50	WG1289906
Benzo(k)fluoranthene	U		0.000688	0.00688	1	06/03/2019 03:50	WG1289906
Chrysene	0.00115	<u>J</u>	0.000688	0.00688	1	06/03/2019 03:50	WG1289906
Dibenz(a,h)anthracene	U		0.000688	0.00688	1	06/03/2019 03:50	WG1289906
Fluoranthene	0.00225	<u>J</u>	0.000688	0.00688	1	06/03/2019 03:50	WG1289906
Fluorene	U		0.000688	0.00688	1	06/03/2019 03:50	WG1289906
Indeno(1,2,3-cd)pyrene	0.00438	<u>J</u>	0.000688	0.00688	1	06/03/2019 03:50	WG1289906
Naphthalene	U		0.00229	0.0229	1	06/03/2019 03:50	WG1289906
Phenanthrene	0.00138	<u>J</u>	0.000688	0.00688	1	06/03/2019 03:50	WG1289906
Pyrene	0.00154	<u>J</u>	0.000688	0.00688	1	06/03/2019 03:50	WG1289906
1-Methylnaphthalene	U		0.00229	0.0229	1	06/03/2019 03:50	WG1289906
2-Methylnaphthalene	U		0.00229	0.0229	1	06/03/2019 03:50	WG1289906
2-Chloronaphthalene	U		0.00229	0.0229	1	06/03/2019 03:50	WG1289906
(S) Nitrobenzene-d5	80.9			14.0-149		06/03/2019 03:50	WG1289906
(S) 2-Fluorobiphenyl	92.5			34.0-125		06/03/2019 03:50	WG1289906
(S) p-Terphenyl-d14	99.1			23.0-120		06/03/2019 03:50	WG1289906

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	84.1		1	06/04/2019 13:40	WG1290579

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Arsenic	3.94		0.547	2.38	1	06/05/2019 11:01	WG1289486
Barium	104		0.202	0.595	1	06/05/2019 11:01	WG1289486
Cadmium	5.65		0.0833	0.595	1	06/05/2019 11:01	WG1289486
Chromium	19.2		0.167	1.19	1	06/05/2019 11:01	WG1289486
Lead	1190		0.226	0.595	1	06/05/2019 11:01	WG1289486
Selenium	U		0.737	2.38	1	06/05/2019 11:01	WG1289486
Silver	1.21		0.143	1.19	1	06/05/2019 11:01	WG1289486

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0163	0.0297	1	06/03/2019 16:24	WG1290203
Acrylonitrile	U		0.00226	0.0149	1	06/03/2019 16:24	WG1290203
Benzene	U		0.000476	0.00119	1	06/03/2019 16:24	WG1290203
Bromobenzene	U		0.00125	0.0149	1	06/03/2019 16:24	WG1290203
Bromodichloromethane	U		0.000937	0.00297	1	06/03/2019 16:24	WG1290203
Bromoform	U		0.00711	0.0297	1	06/03/2019 16:24	WG1290203
Bromomethane	U		0.00440	0.0149	1	06/03/2019 16:24	WG1290203
n-Butylbenzene	U		0.00457	0.0149	1	06/03/2019 16:24	WG1290203
sec-Butylbenzene	U		0.00301	0.0149	1	06/03/2019 16:24	WG1290203
tert-Butylbenzene	U		0.00184	0.00595	1	06/03/2019 16:24	WG1290203
Carbon tetrachloride	U		0.00128	0.00595	1	06/03/2019 16:24	WG1290203
Chlorobenzene	U		0.000681	0.00297	1	06/03/2019 16:24	WG1290203
Chlorodibromomethane	U		0.000535	0.00297	1	06/03/2019 16:24	WG1290203
Chloroethane	U		0.00128	0.00595	1	06/03/2019 16:24	WG1290203
Chloroform	U		0.000494	0.00297	1	06/03/2019 16:24	WG1290203
Chloromethane	U		0.00165	0.0149	1	06/03/2019 16:24	WG1290203
2-Chlorotoluene	U		0.00109	0.00297	1	06/03/2019 16:24	WG1290203
4-Chlorotoluene	U	J4	0.00134	0.00595	1	06/03/2019 16:24	WG1290203
1,2-Dibromo-3-Chloropropane	U		0.00607	0.0297	1	06/03/2019 16:24	WG1290203
1,2-Dibromoethane	U		0.000624	0.00297	1	06/03/2019 16:24	WG1290203
Dibromomethane	U		0.00119	0.00595	1	06/03/2019 16:24	WG1290203
1,2-Dichlorobenzene	U		0.00172	0.00595	1	06/03/2019 16:24	WG1290203
1,3-Dichlorobenzene	U		0.00202	0.00595	1	06/03/2019 16:24	WG1290203
1,4-Dichlorobenzene	U		0.00234	0.00595	1	06/03/2019 16:24	WG1290203
Dichlorodifluoromethane	U		0.000973	0.00297	1	06/03/2019 16:24	WG1290203
1,1-Dichloroethane	U		0.000684	0.00297	1	06/03/2019 16:24	WG1290203
1,2-Dichloroethane	U		0.000565	0.00297	1	06/03/2019 16:24	WG1290203
1,1-Dichloroethene	U		0.000595	0.00297	1	06/03/2019 16:24	WG1290203
cis-1,2-Dichloroethene	U		0.000821	0.00297	1	06/03/2019 16:24	WG1290203
trans-1,2-Dichloroethene	U		0.00170	0.00595	1	06/03/2019 16:24	WG1290203
1,2-Dichloropropane	U		0.00151	0.00595	1	06/03/2019 16:24	WG1290203
1,1-Dichloropropene	U		0.000833	0.00297	1	06/03/2019 16:24	WG1290203
1,3-Dichloropropane	U		0.00208	0.00595	1	06/03/2019 16:24	WG1290203
cis-1,3-Dichloropropene	U		0.000806	0.00297	1	06/03/2019 16:24	WG1290203
trans-1,3-Dichloropropene	U		0.00182	0.00595	1	06/03/2019 16:24	WG1290203
2,2-Dichloropropane	U		0.000943	0.00297	1	06/03/2019 16:24	WG1290203
Di-isopropyl ether	U		0.000416	0.00119	1	06/03/2019 16:24	WG1290203
Ethylbenzene	U		0.000630	0.00297	1	06/03/2019 16:24	WG1290203
Hexachloro-1,3-butadiene	U		0.0151	0.0297	1	06/03/2019 16:24	WG1290203

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## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Isopropylbenzene	U		0.00103	0.00297	1	06/03/2019 16:24	WG1290203
p-Isopropyltoluene	U		0.00277	0.00595	1	06/03/2019 16:24	WG1290203
2-Butanone (MEK)	0.0150	<u>B</u>	0.0149	0.0297	1	06/03/2019 16:24	WG1290203
Methylene Chloride	U		0.00790	0.0297	1	06/03/2019 16:24	WG1290203
4-Methyl-2-pentanone (MIBK)	U		0.0119	0.0297	1	06/03/2019 16:24	WG1290203
Methyl tert-butyl ether	U		0.000351	0.00119	1	06/03/2019 16:24	WG1290203
Naphthalene	U		0.00371	0.0149	1	06/03/2019 16:24	WG1290203
n-Propylbenzene	U		0.00140	0.00595	1	06/03/2019 16:24	WG1290203
Styrene	U		0.00325	0.0149	1	06/03/2019 16:24	WG1290203
1,1,1,2-Tetrachloroethane	U		0.000595	0.00297	1	06/03/2019 16:24	WG1290203
1,1,2,2-Tetrachloroethane	U		0.000464	0.00297	1	06/03/2019 16:24	WG1290203
1,1,2-Trichlorotrifluoroethane	U		0.000803	0.00297	1	06/03/2019 16:24	WG1290203
Tetrachloroethene	U		0.000833	0.00297	1	06/03/2019 16:24	WG1290203
Toluene	0.00279	<u>J</u>	0.00149	0.00595	1	06/03/2019 16:24	WG1290203
1,2,3-Trichlorobenzene	U		0.000743	0.00297	1	06/03/2019 16:24	WG1290203
1,2,4-Trichlorobenzene	U		0.00573	0.0149	1	06/03/2019 16:24	WG1290203
1,1,1-Trichloroethane	U		0.000327	0.00297	1	06/03/2019 16:24	WG1290203
1,1,2-Trichloroethane	U		0.00105	0.00297	1	06/03/2019 16:24	WG1290203
Trichloroethene	U		0.000476	0.00119	1	06/03/2019 16:24	WG1290203
Trichlorofluoromethane	U		0.000595	0.00297	1	06/03/2019 16:24	WG1290203
1,2,3-Trichloropropane	U		0.00607	0.0149	1	06/03/2019 16:24	WG1290203
1,2,4-Trimethylbenzene	U		0.00138	0.00595	1	06/03/2019 16:24	WG1290203
1,2,3-Trimethylbenzene	U		0.00137	0.00595	1	06/03/2019 16:24	WG1290203
1,3,5-Trimethylbenzene	U		0.00128	0.00595	1	06/03/2019 16:24	WG1290203
Vinyl chloride	U		0.000812	0.00297	1	06/03/2019 16:24	WG1290203
Xylenes, Total	U		0.00568	0.00773	1	06/03/2019 16:24	WG1290203
(S) Toluene-d8	101			75.0-131		06/03/2019 16:24	WG1290203
(S) a,a,a-Trifluorotoluene	5.49	<u>J2</u>		80.0-120		06/03/2019 16:24	WG1290203
(S) 4-Bromofluorobenzene	100			67.0-138		06/03/2019 16:24	WG1290203
(S) 1,2-Dichloroethane-d4	90.9			70.0-130		06/03/2019 16:24	WG1290203

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.0105		0.000714	0.00714	1	06/03/2019 04:11	WG1289906
Acenaphthene	U		0.000714	0.00714	1	06/03/2019 04:11	WG1289906
Acenaphthylene	0.00297	<u>J</u>	0.000714	0.00714	1	06/03/2019 04:11	WG1289906
Benzo(a)anthracene	0.0577		0.000714	0.00714	1	06/03/2019 04:11	WG1289906
Benzo(a)pyrene	0.0599		0.000714	0.00714	1	06/03/2019 04:11	WG1289906
Benzo(b)fluoranthene	0.0656		0.000714	0.00714	1	06/03/2019 04:11	WG1289906
Benzo(g,h,i)perylene	0.0284		0.000714	0.00714	1	06/03/2019 04:11	WG1289906
Benzo(k)fluoranthene	0.0268		0.000714	0.00714	1	06/03/2019 04:11	WG1289906
Chrysene	0.0557		0.000714	0.00714	1	06/03/2019 04:11	WG1289906
Dibenz(a,h)anthracene	0.00821		0.000714	0.00714	1	06/03/2019 04:11	WG1289906
Fluoranthene	0.0747		0.000714	0.00714	1	06/03/2019 04:11	WG1289906
Fluorene	0.00146	<u>J</u>	0.000714	0.00714	1	06/03/2019 04:11	WG1289906
Indeno(1,2,3-cd)pyrene	0.0264		0.000714	0.00714	1	06/03/2019 04:11	WG1289906
Naphthalene	0.0224	<u>J</u>	0.00238	0.0238	1	06/03/2019 04:11	WG1289906
Phenanthrene	0.0259		0.000714	0.00714	1	06/03/2019 04:11	WG1289906
Pyrene	0.0634		0.000714	0.00714	1	06/03/2019 04:11	WG1289906
1-Methylnaphthalene	U		0.00238	0.0238	1	06/03/2019 04:11	WG1289906
2-Methylnaphthalene	0.00469	<u>J</u>	0.00238	0.0238	1	06/03/2019 04:11	WG1289906
2-Chloronaphthalene	U		0.00238	0.0238	1	06/03/2019 04:11	WG1289906
(S) Nitrobenzene-d5	73.4			14.0-149		06/03/2019 04:11	WG1289906
(S) 2-Fluorobiphenyl	65.9			34.0-125		06/03/2019 04:11	WG1289906
(S) p-Terphenyl-d14	52.7			23.0-120		06/03/2019 04:11	WG1289906

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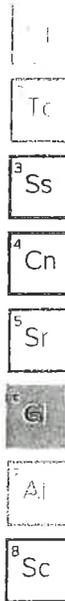
Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J4	The associated batch QC was outside the established quality control range for accuracy.



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# ACCREDITATIONS & LOCATIONS

ONE LAB NATIONWIDE



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-05-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>16</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>14</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

## Third Party Federal Accreditations

A2LA - ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA - ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



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**AINWest Testing & Eng. - Idaho**  
 690 W. Capstone Court  
 Hayden, ID 83835

**Billing Information:**  
 Accounts Payable  
 690 West Capstone Court  
 Hayden, ID 83835

Report to:  
**Brett Zimmerman**  
 Email To: bzimmerman@allwestesting.com

Project Description:  
 Client Project # 119-210E  
 Site/Facility ID # RUC Property  
 Collected by (print): Brett Zimmerman  
 Collected by (signature): [Signature]

Phone: 208-762-4721  
 Fax: [Blank]

Matrix:  
 SS - Soil  
 AIR - Air  
 F - Filler  
 GW - Groundwater  
 B - Blonssay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Chain of Custody Page 1 of 1

**Pace Analytical**  
 National Center for Testing & Inspection

12065 Lebamert Rd  
 Mount Airy, TN 37133  
 Phone: 615-754-5858  
 Phone: 800-747-5858  
 Fax: 615-754-5858

# 1104033  
 J226

ACCTnum: ALLWESTID  
 Template: T150849  
 Prelogin: P710581  
 TSR: 824 - Chris Ward  
 PB: [Blank]

Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix	Depth	Date	Time	Nr. of Cntrs	Analysis / Container / Preservative
S-1 / BH-1	Grab	SS	1'	5/30/19	7:15 <sup>A</sup>	3	VS8260 40mlamb/MeOH5M/SYR
S-2 / BH-1	Grab	SS	4'	5/30/19	7:30 <sup>A</sup>	3	VS8270PAHSM,TS 402Clr-NOPres
S-3 / BH-2	Grab	SS	2'	5/30/19	8:05 <sup>A</sup>	3	MCRAB 202Clr-NOPres
S-4 / BH-2	Grab	SS	3'	5/30/19	8:30 <sup>A</sup>	3	MCRAB 202Clr-NOPres
		SS					
		SS					

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Remarks: **PAH SCREEN - 0.5 MCRAB**

Temp: \_\_\_\_\_ °C  
 pH: \_\_\_\_\_  
 Flow: \_\_\_\_\_ Other: \_\_\_\_\_

Sample returned via:  
 UPS  FedEx  Courier

Tracking # 4794 8834 2362  
 Received by: (Signature) [Signature]  
 Date: 5/30/19  
 Time: 8:00

Received by: (Signature) [Signature]  
 Date: 5/30/19  
 Time: 8:00

Received for lab by: (Signature) [Signature]  
 Date: 5/31/19  
 Time: 0845

Hold: \_\_\_\_\_  
 Condition: NCF / OK



# Average concentrations of elements in Bonner County, Idaho

Counties page > As in Conterminous US > As in northwestern US > Averages in Bonner County (Calculated from cells in the geochemical grid plotting in this area.)

Element	Symbol	Mean	Std. dev.	Minimum	Maximum
Aluminum	Al (wt%)	6.666	0.938	4.060	8.245
Arsenic	As (ppm)	5.679	4.615	1.107	27.629
Calcium	Ca (wt%)	1.737	0.508	0.731	4.328
Copper	Cu (ppm)	16.868	7.086	3.552	40.889
Iron	Fe (wt%)	3.073	0.576	1.637	5.863
Mercury	Hg (ppm)	0.078	0.019	0.020	0.129
Magnesium	Mg (wt%)	0.870	0.250	0.460	2.491
Manganese	Mn (ppm)	816.752	199.352	318.655	1519.410
Sodium	Na (wt%)	1.548	0.469	0.659	2.850
Phosphorus	P (wt%)	0.097	0.032	0.037	0.223
Lead	Pb (ppm)	30.791	5.588	24.096	82.784
Selenium	Se (ppm)	0.364	0.176	0.105	1.278
Titanium	Ti (wt%)	0.400	0.086	0.175	0.659
Zinc	Zn (ppm)	72.310	21.012	35.723	180.438

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**APPENDIX E**  
**CREDENTIALS**



Construction Materials Testing & Special Inspection  
Geotechnical Engineering  
Environmental Consulting  
Non-Destructive Testing  
Welder Certification & Training

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**Brett Zimmerman**  
**Environmental Specialist**

Mr. Zimmerman has 13 years experience in the construction industry including three years of SWPPP writing and water sampling for lab analysis. Mr. Zimmerman has specialized in field and laboratory testing of soils and asphalt and currently is one of our Environmental Professionals providing Environmental Site Assessment Services and SWPPP services.

**EDUCATION:**

University of Idaho  
Moscow, Idaho  
B.S. Environmental Science  
Minor in Geology

**CERTIFICATIONS:**

ACI (Certification #01106214)  
Concrete Field Testing Technician Grade I  
WAQTC (Certification #22294)  
ACI Concrete Field Technician Grade I  
In-Place Density Testing Technician  
Embankment & Base Testing Technician  
NWCEL - Proprietary Anchors  
OSHA (Certification #2884884)  
Hazardous Waste Certification  
AHERA (Certification #BI20161006-01)  
Certified Building Inspector  
INWAGC (Cert #INWAGC-092016-1420)  
Certified Erosion & Sediment Control Lead  
Panhandle Health District (Cert #CL14-29)  
Institutional Controls Program  
Stormwater & Erosion Education Program  
40-Hour Hazardous Waste Operations and  
Emergency Response Training  
NRC Radiation Safety & Use of Nuclear  
Gauge

**CONTACT INFORMATION:**

ALLWEST Testing & Engineering, LLC  
690 W. Capstone Court  
Hayden, Idaho 83835  
  
bzimmerman@allwesttesting.com  
  
208-762-4721 Office  
208-762-0942 Fax

**REPRESENTATIVE PROJECTS**

- **Millers Food City, Spirit Lake, Idaho (2016)**  
Performed Phase I Environmental Site Assessment services for this project including the adjacent lots in Kootenai County, Idaho. This site was previously developed with five buildings, a paved parking lot as well as a vacant treed lot. This project was undertaken to satisfy the due diligence requirements for one of the three Landowner Liability Protections (LLP's).
- **Silver Mountain Resort, Kellogg, Idaho (2016)**  
Performed Phase I Environmental Site Assessment services for this project including eight adjacent/surrounding lots in Kellogg, Idaho. This project was undertaken to assess the potential existence of petroleum products or hazardous materials on the site or the adjoining properties.
- **6th Avenue Extension Project, Bonner County, ID (2016)**  
This project, undertaken in sequence of phases within two construction seasons, included the improvement/extension of Sixth Avenue from Larch Street to Chestnut Street. ALLWEST provided services for this project under the Stormwater Pollution Prevention Plan.
- **Auto Alley, Ponderay, Idaho (2016)**  
Performed a Phase I Environmental Site Assessment for this project to satisfy due diligence requirements for one of the three Landowner Liability Protections (LLP's) that limits the CERCLA liability. This site is approximately 12.7 acres encompassing two parcels that have been used as a wrecking yard since at least 1950 and has had various buildings on the site over that period of time.

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