

# Phase I Environmental Site Assessment Tribal Unit 45 Richardson's Sawmill

Nez Perce Tribe
Water Resources Division
Tribal Response Program

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#### **Table of Contents**

Ac	onyms and Abbreviations	8
1.0	Summary	10
2.0	Introduction	12
	2.1 Purpose	12
	2.2 Detail Scope-of-Services	12
	2.3 Significant Assumptions	12
	2.4 Limitations and Expectations	13
	2.5 Special Terms and Conditions	13
	2.6 User Reliance	13
3.0	Subject Property Description	13
	3.1 Location and Legal Description	13
	3.2 Subject Property and Vicinity General Characteristics	14
	3.3 Current Use of the Property	14
	3.4 Descriptions of Structures, Roads, Other Improvements on the Subject Property	14
	3.5 Current Uses of Adjoining Properties	15
4.0	User Provided Information	15
	4.1 Title Records	15
	4.2 Environmental Liens or Activity and Use Limitations	15
	4.3 Specialized Knowledge	15
	4.4 Commonly Known or Reasonably Ascertainable Information	16
	4.5 Valuation Reduction for Environmental Issues	16
	4.6 Owner, Property Manager, and Occupant Information	16
	4.7 Reason for Performing Phase I ESA	16
	4.8 Prior Environmental Reports	16

	4.9 Other	. 17
5.0	Records Review	. 17
	5.1 Standard Environmental Record Sources	. 17
	5.2 Aerial Photograph	. 20
	5.3 Sanborn Fire Insurance Maps	. 20
	5.4 Additional Historical Use Sources	. 20
	5.5 Physical Setting Sources	. 21
	5.6 Historical Use Information on the Property	. 25
	5.7 Historical Use Information on Adjoining Properties	. 28
6.0	Site Reconnaissance	. 29
	6.1 General Subject Property Setting	. 29
	6.2 Exterior Observations	. 29
	6.3 Interior Observations	. 29
7.0	Interviews	. 29
8.0	Findings	. 30
	8.1 Poly Chlorinated Biphenyl (PCB)	. 30
	8.2 Creosote Treatment Facility	. 33
	8.3 UST	. 37
	8.4 Orofino Trap Range	. 38
	8.5 Demolition Debris In and Around Log Pond	. 38
	8.6 Perchlorate contaminated groundwater	. 39
	8.7 Possible pentachlorophenol contaminated soil and groundwater	. 40
	8.8 Possible Lead-Based Paint Contaminated Soil	. 40
	8.9 Sawmill water line with lead sealed joints	. 41
	8.10 Seubert Excavators Asphalt and Concrete Batch Plants	. 41
	8.11 Off-Site Environmental Concerns	. 41
9.0	Opinions	. 41

9.1 PCBs	41
9.2 Creosote Treatment Area	41
9.3 UST	42
9.4 Orofino Trap Range	42
9.5 Demolition debris in and around log pond	42
9.6 Perchlorate groundwater contamination	42
9.7 Pentachlorophenol contaminated soil and groundwater	43
9.8 Possible Lead-Based Paint Contaminated Soil	43
9.9 Other On-Site Concerns	43
10.0 Conclusions	43
11.0 Deviations and Deficiencies	44
12.0 Additional Services	44
12.1 Compliance with National Historic Preservation Act (NHPA)	44
13.0 References	45
14.0 Signature of Environmental Professional	46
15.0 Qualifications of Environmental Professional	46
Appendixes	47
Appendix 1. Research Documentation (aerial photographs, fire insurance maps, topographical maps, etc.)	47
Appendix 2. Standard Environmental Record Sources Memo and Mr. Paul Brusven interview	
Appendix 3. Site Reconnaissance and Interview with Marcus Oatman	56
Appendix 4 Interview with Dale Richardson	60
Appendix 5 Five Additional Interviews	65
Appendix 6 Request to use LUST Trust Funds for UST Assessment	68
Appendix 7 Interview with Terry Sverdsten May 22, 2014	71
Appendix 8 Interview with Thomas C. Reiner May 22, 2014	72
Appendix 9 WASCO Revocable Permit, July 1, 1997	74 6

Appendix 10 Qualifications for Kevin Brackney, Environmental Professional	. 78
Appendix 11 Qualifications for David Sutherland	. 82
Appendix 12 Qualifications for Melissa Smothers	. 83
Appendix 13 Qualifications for Judy Goodson	. 84
Figure 1. TU-45 Location Map and Recognized Environmental Conditions	11
Figure 2. Drilling MW-3 adjacent to Power House	
Figure 3. Power House, PCB sample locations	
Figure 4. Creosote treatment area, 2013.	
Figure 5. Creosote treatment area soil sample locations	
Figure 6. Lead shot collected from riverbank of TU-46 downrange of Orofino Trap House	
Figure 7. Current location of Fisheries office/site of Orofino Gun Club Trap House	
Figure 8. Waste materials dumped at log pond by WASCO, Inc. in 1998	. 49
Figure 9. Present day photograph of waste materials dumped at log pond	. 49
Figure 10. Fireworks discarded at TU-45.	
Figure 11. Saw mill office/WhiteEagle gift shop.	
Figure 12. Drinking water well log, TU-45.	
Figure 13. Riverside Sawmill water intake pipe in Clearwater River.	
Figure 14. Geophysical map showing location of UST	
Figure 15. 1973 aerial photo showing location of fuel tanks used by sawmill and location of	
UST identified by geophysics	. 70
Table 1. Descriptions of Structures, Roads, and Improvements	. 15
Table 2. Current uses of adjoining properties.	
Table 3. Dates of aerial photographs	
Table 4. Groundwater wells summary	
Table 5. BIA, Tribal Land Services, and NPTEC Lease Records	. 27
Table 6. Historic use of adjoining properties	
Table 7. Interview summary	
Table 8. PCB Sample Results, Power House.	
Table 9. Creosote treatment area, soil sample results.	
Table 10. Monitor well sample results, TU-45	. 37

**Acronyms and Abbreviations** 

ASTM American Society of Testing and Materials

BIA Bureau of Indian Affairs

CERCLIS Comprehensive Environmental Response, Compensation, and Liability

**Information System** 

CORRACTS corrective actions

EDR® Environmental Data Resources®

EPA United States Environmental Protection Agency

ERNS Emergency Notification Response System

ESA environmental site assessment

GWP Groundwater Program

HWY highway

IHS Indian Health Services

IC/EC institutional control/engineering control(s)

IDEQ Idaho Department of Environmental Quality

LUSTs leaking underground storage tanks

non-CORRACTS no corrective actions

NPL National Priorities List

NPT Nez Perce Tribe

NFRAP no further remedial action planned

PCB polychlorinated biphenyl

RCRA Resource Conservation and Recovery Act

RECs recognized environmental concerns

TBA Targeted Brownfields Assessment

TRP Tribal Response Program

TSD treats, stores, and disposes

TU tribal unit

UST(s) underground storage tank(s)

#### WRD Water Resources Division

#### 1.0 Summary

Tribal Unit (TU)-45 is a 38.9 acre property located 1.3 miles southeast of Orofino, Idaho, along the Clearwater River. This property is managed in Trust by the Bureau of Indian Affairs (BIA) for the Nez Perce Tribe (Tribe). Tribal Fisheries Office, Teweepuu Community Center, and recreation--focusing on fishing, swimming, walking, and fireworks detonation and sales--are the main site activities. The significant historic uses of the site include the Richardson/Riverside Sawmill (1942-1980), Sverdsten Logging, sorting yard, (1983-1984), Seubert Excavators, asphalt batch plant, (1987-1991), WASCO, depositing demolition debris (1997), and various fireworks stands (1983-2014).

A Phase I Environmental Site Assessment (ESA) was performed on TU-45 in conformance with the scope of work and ASTM Practice E 1527-2000 in March 10, 2010. A Targeted Brownfield Assessment was funded and managed by EPA was completed in December 2011, and concluded that additional site characterization was needed. A Phase II ESA, managed and funded by Tribal Response Program (TRP), began in 2013 and includes trenching, soil sampling, geophysics, drilling of four monitor wells, and groundwater sampling. This revised Phase I ESA incorporates findings from the TBA, Phase II ESA findings to date, and presents the following professional opinions regarding recognized environmental conditions (RECs) at TU-45:

- 1. Creosote contaminated soil and possible creosote groundwater contamination
- 2. Underground Storage Tank (UST);
- 3. Uncharacterized "demolition debris"
- 4. Perchlorate contamination of groundwater from fireworks detonation
- 5. Soil and possible groundwater contamination by pentachlorophenol of unknown origin.

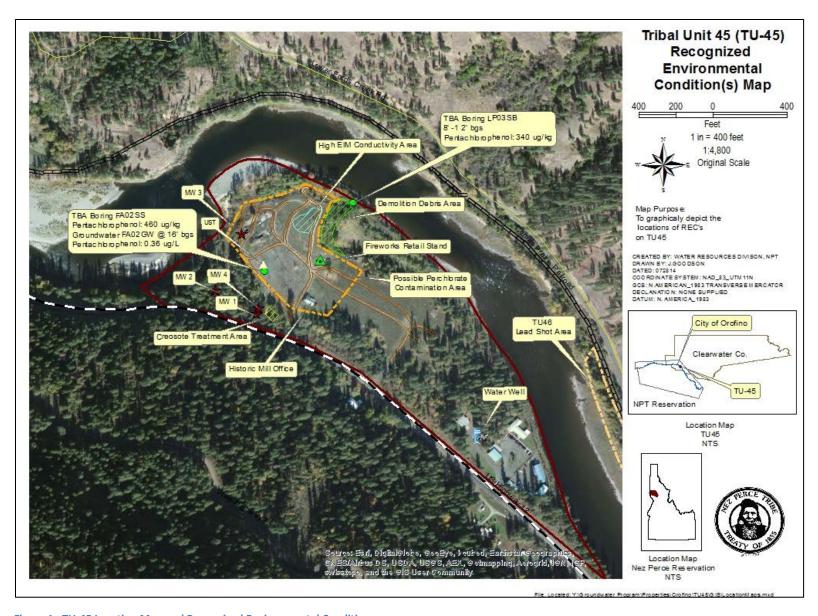


Figure 1. TU-45 Location Map and Recognized Environmental Conditions.

#### 2.0 Introduction

TU-45 is a 38.9-acre site on the northern boundary of the Nez Perce Reservation, 1.3 miles southeast of Orofino, Clearwater County, Idaho (Figure 1). The site is situated along the south bank of the Clearwater River on a large point bar located at mile point 45.4 on Highway 12, a National Scenic Byway. The Nez Perce Tribe has owned the property since time immemorial and it is held in trust by the US Government for the Tribe.

#### 2.1 Purpose

TU-45 is the only large flat property between Orofino and Kamiah, Idaho, and has excellent redevelopment potential. A redevelopment goal for TU-45 was articulated by Tribal Enterprises and approved by the Nez Perce Tribal Executive Committee (NPTEC) in future economic development strategies for a "Tourism and Retail Center for attracting interest in the site of Chief Twisted Hair and the Es-kap-o band of the Nez Perce Tribe<sup>1</sup>." The purpose of the Phase I ESA was to identify potential environmental risks on TU-45 that may hinder the redevelopment of the property or contaminating the Clearwater River with persistent organic pollutants that can be concentrated in the food web.

#### 2.2 Detail Scope-of-Services

The scope of work for this assessment was in general accordance with the American Society of Testing and Materials (ASTM) Standard Practices for ESAs: Phase I ESA Process (ASTM Designation: E1527-13). These methodologies are described as representing good commercial and customary practice for conducting an ESA of a property for the purpose of identifying RECs.

The author and staff who provided assistance in data collection, compilation, and writing this Phase I ESA are employees of the Nez Perce Tribe, Department of Natural Resources, Water Resources Division, and manage an EPA Tribal Response Program (TRP) Grant. We have had full access to all available, records, personnel, and full site access. No formal scope-of-services was developed between the TRP and the Tribe. The Environmental Professional is following his best professional judgment as to status of recognized environmental conditions. No other guidance has been offered.

#### 2.3 Significant Assumptions

While this report provides an overview of potential RECs, the ESA is limited by the availability of information at the time of the assessment. It is possible that unreported disposal of waste or illegal activities impairing the environmental status of the property may have occurred which could not be identified. The conclusions and recommendations regarding environmental conditions that are presented in this report are based on the Environmental Professional's best professional judgment. Note, however, that virtually no investigation, no matter how exhaustive, can identify all contaminants or all conditions above and below ground.

<sup>1</sup> Nez Perce Tribal Enterprises Economic Development Strategies, p.12, July 2009.

#### 2.4 Limitations and Expectations

The report has been prepared in accordance with generally accepted environmental methodologies referred to in ASTM 1527-2000, and contains all of the limitations inherent in these methodologies. No other warranties, expressed or implied, are made as to the professional services provided.

The conclusions of this report are based in part on the information provided by others. The possibility remains that unexpected environmental conditions may be encountered at TU-45 in locations not specifically investigated. Should such an event occur, TRP must be notified in order that we may determine if modifications to our conclusions are necessary.

The services performed and outlined in this report were based in part upon visual observations of the subject property and attendant structures. Our opinion cannot be extended to portions of TU-45 that were unavailable for direct observation or reasonably beyond the control of Tribe. Our observations relating to the condition of environmental media at TU-45 are described in this report. It should be noted that compounds or materials other than those described may be present. Evaluating compliance of past or future owners with applicable local, provincial and federal government laws and regulations was not included in this ESA.

Additionally, Phase II ESA sampling and analysis data has been incorporated into the interpretations and conclusions on the presence of recognized environmental conditions. As this work was only partially completed due to the lack of assessment funds it may be subject to revision as additional data is collected or reinterpretation by other qualified professionals.

#### 2.5 Special Terms and Conditions

There are no special terms or conditions to report.

#### 2.6 User Reliance

This report may be distributed and relied upon by Tribe, its successors, and assigns. Reliance on the information and conclusions in this report by any other person or entity is at the users own risk. Based on the opinions of the Environmental Professional a Phase II ESA is pending through the Brownfields Assessment Grant. The information in this document may be substantially revised as new data is collected and interpreted. It is highly recommended that the potential user obtain the most recent information before making decisions regarding the significance of proven, probable, or possible contamination potentially affecting the redevelopment of the property.

#### 3.0 Subject Property Description

#### 3.1 Location and Legal Description

TU-45 is located at mile point 45.4 on HWY 12 in Orofino, Idaho 83544. The legal description is *Township* 36N, *Range* 2E, and *Section* 17. The latitude and longitude coordinates are 116.2395 and 46.4661, respectively. Although Tribal lands are not regulated by the City of Orofino, the area is zoned as C-1, F-1, and M-2:

- C-1, Light Commercial District The Light Commercial District shall be established to permit the establishment of businesses suitable to serve the commercial and personal service needs of residential development;
- F-1, Low Density Rural District The Low Density Rural District shall be established to preserve and protect the diminishing supply of agricultural, horticultural, and silvicultural land. This district shall also serve to control the infiltration of urban development into agricultural areas which would adversely affect agricultural operators; and
- M-2, Heavy Industrial District The Heavy Industrial District shall be established to permit the development of major manufacturing, processing, warehousing, and major research and testing operations, while providing restrictions upon those uses sufficient to protect public infrastructure from unnecessary damage.

#### 3.2 Subject Property and Vicinity General Characteristics

TU-45 encompasses 38.9 acres. Modular, metal, wood, and concrete buildings are located on the subject property. These structures are situated primarily on the southeast portion of TU-45 and the buildings' footprints account for less than five percent of the subject property area. With the exception of the town of Orofino, most of the surrounding vicinity within a one mile radius, consists of undeveloped steep canyon walls along the Clearwater River, and is used for grazing and limited timber production. A few home sites are located to the south of TU-45.

#### 3.3 Current Use of the Property

Tribal Fisheries office and the Teweepuu Tribal Community Center are actively using the southeast corner of the property. The majority of TU-45 is open space and actively used for recreation including fireworks sales and ignition, fishing, swimming, camping, walking, and wildlife viewing.

**3.4 Descriptions of Structures, Roads, Other Improvements on the Subject Property** The following buildings and structures are located on the subject property:

Table 1. Descriptions of Structures, Roads, and Improvements

<b>Building Name</b>	Year Constructed	Usage	Construction
Fisheries office	1994?	Administration	1 story modular units
Storage shed	1994	Storage	1 story metal frame
Teweepuu	1987	Community Center	1 story modular units
Water Well	Drilled 1987	Community Center	See 5.5.7 Well Driller's
		and Fisheries Office	Report
Septic System	1987?	Community Center	
		and Fisheries Office	
Transformer	1943	Abandoned	8 ft x 12 ft, 1 story concrete
Building			slab-on-grade with concrete
			block construction
WhiteEagle Gift	1943	Storage	1 story wood frame
Shop/Sawmill			
Office			

Also, please see Appendices section 16.4 of this assessment.

#### 3.5 Current Uses of Adjoining Properties

Table 2. Current uses of adjoining properties.

Direction	Description of Use
North	Clearwater River, TU – 46
South	TU – 44 (home sites, grazing), HWY 12
East	TU – 44 (home sites, grazing), TU - 46, Clearwater River
West	TU – 44 (home sites, grazing), HWY 12

#### 4.0 User Provided Information

#### 4.1 Title Records

A review of the chain-of-title information was not part of the scope of work for this assessment. The property has been owned in perpetuity by the Tribe.

#### 4.2 Environmental Liens or Activity and Use Limitations

No environmental liens were reported by the Tribe. However, notes in BIA lease files expressed concern about the presence of pollutants that may preclude the development of the property. The common perception among Tribal members is that the land is too polluted for redevelopment.

#### 4.3 Specialized Knowledge

Tribal BIA lease records and environmental records were the primary source of information regarding historic uses of the property. In particular, information related a PCB spill and cleanup, possible creosote contamination, demolition debris disposal, and the historic use of the property as a trap range by the Orofino Gun club, were found in BIA files at the North Idaho Agency, Lapwai, Idaho.

#### 4.4 Commonly Known or Reasonably Ascertainable Information

TU-45 is wholly owned by the Tribe and held in trust by the BIA. The sawmill was built on this undeveloped property in 1943 and operated until May 1980 when the Tribe declined to renew the lease. Mill site demolition and cleanup was conducted during the period of June 1980 through July 1982. The mill was owned by Joe Richardson and son Dale Richardson. Mr. D. Richardson dismantled the mill and sold the machinery and buildings for salvage. Mr. Richardson agreed to two interviews held in the field at TU-45 and was very cooperative and interested in the ESA process. Interviews with post saw mill operators were conducted by telephone and provided much less detail regarding site specific activities.

#### **4.5 Valuation Reduction for Environmental Issues**

No property valuation reduction relating to environmental concerns was reported by the Tribe. Because the property is held in trust no sale is planned.

#### 4.6 Owner, Property Manager, and Occupant Information

A point of contact for the Tribe is Silas C. Whitman, Chairman (208-843-7342). TU-45 is occupied by Tribal Fisheries Office, Teweepuu Community Center, and various storage buildings.

#### 4.7 Reason for Performing Phase I ESA

The purpose of the Phase I ESA was to gather sufficient information to render an independent professional opinion about the environmental condition of the property. An initial Phase I ESA, dated March 10, 2010 was prepared in conjunction with the EPA-funded Targeted Brownfield Assessment. On May 28, 2014, the Tribe was awarded a \$199,978 Brownfield Assessment Grant. This Phase I ESA report incorporates the information collected during the 2010 Phase I ESA, includes data collected during the TBA and Phase II ESA (in progress), and new interviews with former operators at TU-45. This Phase I ESA is being prepared to fully inform all interested parties of environmental findings identified at the site, professional opinions on the significance of the environmental findings, and recognized environmental conditions (RECs) at TU-45.

TU-45 is situated in a beautiful area along the Clearwater River east of Orofino, Idaho. Nez Perce Tribal Enterprises has been interested in the subject property for many years to develop as a recreational venue focusing on fishing and hunting with lodge, boat ramp, cabin rentals, and store. Tribal Enterprises and Tribal Housing have both requested an environmental review prior to proceeding with proposals to build two bedroom rental apartments and tourist facilities. The probable soil and groundwater contamination is currently slowing development plans. The property has potential to generate jobs, income, and housing. It is anticipated that the Teweepuu Community Center would be enhanced and that Tribal Fisheries would remain in place.

#### 4.8 Prior Environmental Reports

 Phase I Environmental Site Assessment, Tribal Unit 45, Richardson's Sawmill, by Kevin M. Brackney, Nez Perce Tribe, Water Resources Division, Groundwater Program, March 10, 2010.

- "Riverside/Richardson Saw Mill (TU-45), AARA Funded, Targeted Brownfields Assessment, Orofino, Idaho", dated December 2011, was prepared for US EPA, by Ecology and Environment, Inc.
- Geophysical Site Investigation, TU-45, Nez Perce Reservation, Idaho, Geophysical Survey LLC, December 1, 2013, pp. 12
- Phase II Environmental Site Assessment, TU-45, Nez Perce Tribe, Tribal Response Program, (in progress).

#### 4.9 Other

BIA, Tribal Land Services, and Nez Perce Tribal Executive Committee (NPTEC) files contain useful information related to historic uses and environmental cleanup actions related to the property.

#### 5.0 Records Review

The TRP completed an environmental database search of federal, state, and tribal environmental records for TU-45 as defined by ASTM E 1527-05.

#### 5.1 Standard Environmental Record Sources

The database search results are summarized in the following paragraphs. A listing of all databases searched and the results is included in Appendix 2. The provided search report meets or exceeds the regulatory records search requirements of ASTM E1527-00.

No unmappable facilities were observed to be within the ASTM minimum search distance of TU-45.

#### 5.1.1 Federal National Priorities List

The EPA maintains a list that documents national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the U. S. and its territories.

A review of the Federal National Priorities List (NPL) indicates that no NPL sites are within one mile of the subject property.

#### 5.1.2 Federal Delisted National Priorities List

The EPA maintains a list that documents all delisted national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the U. S. and its territories.

A review of the Federal National Priorities List (NPL) indicates that no delisted NPL sites are within one half mile of TU-45.

## 5.1.3 Federal Comprehensive Environmental Response, Compensation, and Liability Information System List

The Comprehensive, Environmental Response, Compensation, and Liability Information System (CERCLIS) database contains national information on Superfund sites to include hazardous waste sites, potential hazardous waste sites, and remedial activities.

A review of the CERCLIS List indicates that no CERCLIS sites are within one half mile of the subject property.

## 5.1.4 Federal Comprehensive Environmental Response, Compensation, and Liability Information System No Further Remedial Action Planned List

The EPA maintains a database of CERCLIS sites that for which no further remedial action is planned (NFRAP).

A review of the CERCLIS List indicates that are no CERCLIS NFRAP sites located within one half mile of the subject property:

## **5.1.5 Federal Resource Conservation and Recovery Act Corrective Actions Facilities List** The EPA maintains a database of Federal RCRA facilities that require corrective actions (CORRACTS).

A review of the RCRA CORRACTS facilities list indicates that no RCRA CORRACTS sites are within one mile of the subject property.

## 5.1.6 Federal Resource Conservation and Recovery Act non-Corrective Actions Transporters, Storage, and Disposal Facilities List

The EPA maintains a database of Federal RCRA facilities that treat, store, and dispose (TSD) hazardous wastes that do not require corrective actions (non-CORRACTS).

A review of the RCRA non-CORRACTS TSD facilities list indicates that no RCRA non-CORRACTS TSD sites are within one mile of the subject property.

#### 5.1.7 Federal Resource Conservation and Recovery Act Generators List

The EPA maintains a national database of Federal RCRA generators.

A review of the RCRA generators list indicates there are no generators on TU-45 or adjoining properties.

#### 5.1.8 Federal Institutional Control/Engineering Control Registries

The EPA maintains the Federal Institutional Control and/or Engineering Control (IC/EC) Registry. The IC/EC registry identifies projects that have IC/ECs as part of the selected remedy.

A review of the Federal IC/EC Registry indicates there are no on the subject property or adjoining properties.

#### 5.1.9 Federal Emergency Response Notification System List

The U.S. Coast Guard maintains the Federal Emergency Response Notification System (ERNS) List. The Federal ERNS List is the sole national point of contact for reporting all oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the U.S.

A review of the Federal ERNS List indicates there are no reports of discharges on TU-45.

#### 5.1.10 State and Tribal Equivalent of National Priorities List

The Idaho Department of Environmental Quality (IDEQ) maintains a database of State and Tribal Equivalent of NPL.

A review of the State and Tribal Equivalent of NPL indicates there are no State or Tribal equivalents to the NPL within one mile of the subject property.

## 5.1.11 State and Tribal Equivalent of Comprehensive Environmental Response, Compensation, and Liability Information System List

The IDEQ maintains a database of State and Tribal Equivalent of CERCLIS List.

A review of the State and Tribal Equivalent of CERCLIS List indicates there are no State or Tribal equivalents to the CERCLIS List within one half mile of TU-45.

#### 5.1.12 State and Tribal Landfill and /or Solid Waste Disposal Site List

The IDEQ maintains a database of State and Tribal Landfills and a second database for Solid Waste Disposal Facilities for the state.

A review of the landfill database indicates there are no landfills within one half mile of the subject property.

A review of the solid waste disposal facility database indicates there is no solid waste disposal facility within one half mile of TU-45.

#### 5.1.13 State and Tribal Leaking Underground Storage Tanks List

The EPA maintains a list of State Leaking Underground Storage Tanks (LUSTs), active Tribal LUSTs, and closed Tribal LUSTs.

A review of the EPA's State LUST list indicates there are no LUSTs within one half mile of the subject property.

A review of the EPA's active Tribal LUST list indicates there are no active LUSTs within one half mile of TU-45.

A review of the EPA's closed Tribal LUST list indicates there are no closed LUSTs within one half mile of TU-45:

#### 5.1.14 State and Tribal Registered Underground Storage Tanks List

The EPA maintains a list of State Underground Storage Tanks (USTs) and Tribal USTs.

A review of both the EPA's State and Tribal UST lists indicates there are no regulated USTs on the subject property or adjoining properties. However, a geophysical survey of the saw mill portion of the property identified a 300 to 500 gallon UST<sup>2</sup>.

**5.1.15** State and Tribal Institutional Control and/or Engineering Control Registries The IDEQ maintains a database of State and Tribal institutional controls and engineering controls.

A review of IDEQ's data indicates there are no institutional controls or engineering controls on the TU-45 or adjoining properties.

<sup>&</sup>lt;sup>2</sup> Geophysical Site Investigation, TU-45, Nez Perce Reservation, Idaho, Geophysical Survey LLC, December 1, 2013, pp. 12.

#### 5.1.16 State and Tribal Voluntary Cleanup Sites

The IDEQ maintains an inventory of State and Tribal voluntary cleanup sites.

A review of IDEQ's inventory indicates there are no voluntary cleanup sites within one half mile of the subject property.

#### 5.1.17 State and Tribal Brownfields Sites

The IDEQ maintains an inventory of State and Tribal brownfields sites.

A review of IDEQ's inventory indicates there are no brownfields sites within one half mile of the subject property.

The Tribe maintains an extensive database titled "Inventory of Regulated Properties" developed as part of the Brownfield Tribal Response Program. TU-45 is the primary Brownfield identified in the inventory. TU-44 on the opposite bank of the Clearwater River from TU-45 is contaminated with lead shot. This property is discussed under the heading 8.4 Orofino Trap Range.

#### 5.2 Aerial Photograph

Aerial photographs of the subject property from approximately 1950's through 2013 were reviewed for indication of previous land uses. The results of this review are summarized below:

Table 3. Dates of aerial photographs

Year	Description
1952	Sawmill
1973	Sawmill
2004	Office buildings, storage shed, Community Center
2013	Office buildings, storage shed, Community Center

#### **5.3 Sanborn Fire Insurance Maps**

Fire insurance maps are used to determine fire hazards and were produced for most urban areas since the late 1800s.

No Sanborn Fire Insurance Maps were reviewed for TU-45.

#### 5.4 Additional Historical Use Sources

#### 5.4.1 City Directories

A review of city directories can result in prior business or residences for the site location or adjoining properties. No city directories were reviewed for the subject property.

#### 5.4.2 Museums

Mr. Sutherland visited the Clearwater Historical Museum on June 16, 2009. He found two Sanborn maps for Orofino dated 1910 and 1928. He also found copies of plat maps for Orofino dated 1910, 1914, 1928, and 1944. Mr. Sutherland photocopied an aerial photograph of Orofino dated 1958. However, these maps only covered downtown Orofino and did not include the subject property.

#### 5.4.3 University of Idaho Library, Special Collections and Archives

Judy Goodson visited the Special Collections and Archive within the University of Idaho Library on December 17, 2012 and found circa 1950's aerial photographs of the mill site taken by amateur photographer A.B. Curtis. These files were copied and scanned into digital format for WRD files on TU-45

#### **5.5 Physical Setting Sources**

#### 5.5.1 Topography

The United States Geological Survey (USGS) 1984 Orofino East 7.5 minute series topographic map was reviewed. The elevation of the subject property ranges from 1020 to 1070 feet above sea level with a moderate aspect to the north-northeast. The Clearwater River borders the northern side of TU-45; and HWY 12 borders the southern side.

#### 5.5.2 Regional Geography

The subject property is located southeast of Orofino in the Clearwater River canyon upriver from the mouth of Orofino Creek. According to an Environmental Data Resources® report for downtown Orofino, "The Clearwater River and its tributaries have cut deep canyons into the Camas Prairie. Camas Prairie is a portion of the Columbia River Plateau and is composed of Miocene basalt flows of the Columbia River Basalt Group. The Clearwater River and its tributaries are deeply entrenched into the plateau, and the canyons expose pre-Miocene granitic and metamorphic rocks that compose the underlying basement rocks and the nearby Northern Rocky Mountains."

#### 5.5.3 Soil Survey

The Idaho Geological Survey reports surficial deposits for TU-45 are:

• "Older alluvium of mainstreams (Holocene)—Fine- to coarse-grained bedded sand and silty sand overlying river channel gravel. These alluvial deposits form one or more levels of old point bars and flood plains of the Clearwater River which are younger than the Lake Missoula Floods backwater deposits, but older than alluvium of the present river. Surface heights above present mean water level range from 9 to 45 feet. Relative heights and soil characteristics suggest a late Holocene age, and the lower of these surfaces may have been inundated by the highest seasonal flood waters before the stream flows were controlled by Dworshak dam. The sand overlying channel gravel is several feet thick. Soils developed in older mainstream alluvium include the Itzee series." (Glenn Hoffman, written comm., 2001, from Othberg, et al, 2002).

The Idaho Geological Survey reports geological deposits for the subject property are:

• "Quaternary Deposits - Alluvial deposits (Holocene) – Mostly stream alluvium but may include some slope-wash and fan deposits. Primarily coarse channel gravels deposited during high-energy stream flow. Sub-rounded to rounded pebbles, cobbles, and boulders in a sand matrix. Moderately stratified and sorted. Includes intercalated colluviums and debris-flow deposits from steep side slopes" (from Lewis, et al, 2005).

#### 5.5.4 Hydrogeology

TU- 45 is formed on a point gravel bar adjacent to the Clearwater River composed of sand, gravel, cobbles, and boulders. Groundwater flow maps generated concurrently with monitor well sampling indicate that shallow groundwater, which is located at a depth (in MW-3) of about 27 feet below ground surface beneath the flat portion river terrace and flows northerly towards the river.

#### 5.5.5 Flood Zone Information

The Federal Emergency Management Agency (FEMA) Flood Insurance Map 1600046 0865 B dated May 15, 1980 was reviewed. According to this map the subject property is located in Flood Zone B and C.

#### Zone B is defined by FEMA as:

• Usually the area between the limits of the 100-year and 500-year floods. B Zones are used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year flood, or shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile.

#### Zone C is defined by FEMA as:

 Area of minimal flood hazard, usually depicted on Flood Insurance Rate Maps as above the 500-year flood level. Zone C may have ponding and local drainage problems that do not warrant a detailed study or designation as base floodplain.

#### 5.5.6 Wetland Information

The United States Fish and Wildlife National Wetlands Inventory Map of Orofino East, ID was reviewed to determine if TU-45 contained any identified wetland areas. According to this map the subject property contains three identified wetland areas with the descriptors:

- PUBHx Palustrine, Unconsolidated Bottom, Permanently Flooded, Excavated; and
- R3USC (2 wetland areas) Riverine, Upper Perennial, Unconsolidated Shore, Seasonally Flooded.

The TRP Team Leader, Kevin Brackney, visited TU-45 and determined that the PUBHx wetland area was a former log pond. Mr. Brackney noted that the former log pond was dry, although it may become seasonally flooded, with a grass bottom. In an interview with the former mill owner, Mr. D. Richardson, he stated that he put a clay liner in the pond bottom because it would not hold water. Mr. Richardson stated that the former log pond was a constructed and is not a natural feature. It was concluded that the log ponds are not a jurisdictional wetland and therefore not an environmentally sensitive area.

R3USC riverine wetlands along the banks of the Clearwater River are sensitive because of the threatened and endangered salmon, steelhead, and bull trout in the river. All activities with potential to disturb this habitat will require Army Corps of Engineers (ACOE) and EPA permits prior to any land disturbing activities.

#### 5.5.7 Well Driller's Reports

A 275 ft deep water well with 48 feet of steel casing was drilled on October 7, 1987 on TU-45 (see Figure 1). The depth to water was 46 feet at the time of drilling. Table 4 summarizes the water well log found on the Idaho Department of Water Resources website (Figure 12). An aerial map (Figure 1) illustrates the approximate well location in reference to the RECs. This well supplies drinking water to the Teweepuu Community Center and the Orofino Fisheries Offices. The Tribe is actively pursuing registering the well with EPA Safe Drinking Water Act (SDWA) as a "non-municipal non-transient" water well and has collected the initial water quality samples in compliance with SDWA. The initial sampling-including non-regulated chemicals identified or suspected at TU-45—documents that the water currently exceeds SDWA water quality standards.

Four groundwater monitoring wells were drilled as part of an on-going Phase II ESA (see Figure 1 and Table 4). The wells were drilled to assess potential creosote contamination (MW-1, MW-2, and MW-4), potential PCB contamination (MW-3) and perchlorate and pentachlorophenol contamination. Only traces of creosote were detected in MW-4. PCB and pentachlorophenol were non-detect in all wells. Perchlorate was detected in all wells including the drinking water well. However, perchlorate only exceeded Idaho initial default target levels (IDTL) in MW-3. See headings: 8.1 Poly Chlorinated Biphenyl (PCB), 8.2 Creosote Treatment Facility, 8.6 Perchlorate contaminated groundwater, and 8.7 Possible pentachlorophenol contaminated soil and groundwater for additional details. See

Table 10, for additional contaminant concentration details.

Table 4. Groundwater wells summary

Well Name	Northing UTM 11 North NAD 83 (meters)	Easting UTM 11 North NAD 83 (meters)	Elevation (ft ASL)	Depth to water (ft)	Water Level Measure- ment date	Total Depth (ft)	Notes
Head Start School	5,145,950.248	558,714.381	1087.76	46.00	10/07/87	275	Permit No. 743619 5 gpm granite aquifer
MW1	5,146,146.699	558,350.935	1075.01	15.48	04/11/14	35.8	Drilled in swale
MW2	5,146,185.681	558,283.504	1072.27	12.79	04/11/14	20.0	Drilled in swale
MW3	5,146,278.010	558,325.960	1086.25	27.09	04/11/14	35.0	Ave depth to ground water
MW4	5,146,156.309	558,354.818	1075.49	15.81	04/11/14	22.0	Drilled in swale

#### 5.5.8 Other

No other physical setting data was reviewed.

#### **5.6** Historical Use Information on the Property

Extensive files of the lease history (post 1982), letters relating to activities and proposals for TU-45 and adjacent tribal units, and potential environmental concerns were obtained from the BIA North Idaho Agency and the NPT Land Services Office. These files were copied and scanned into digital format for WRD files on TU-45. Much of what WRD knows about the subject property came from these files and is summarized below.

Some of the BIA and Land Services files use the names TU-43 and TU-44 to refer to TU-45. When available, maps included in the lease agreements were consulted to confirm the exact location of the property in question. Table 5 summarizes the lease history for TU-45.

#### 5.6.1 Bureau of Indian Affairs

A review of the BIA files. The first recorded lease agreement was in 1916 and there are perpetual lease agreements still in effect. Also, the BIA files document lease applications that were not approved. Due to the numerous denied applications, TRP chose to not list them in this ESA. One specific application by the City of Orofino to lease TU-45 for use as a landfill was denied by the Tribe.

#### 5.6.2 Nez Perce Tribe Land Services Office

A review of the Land Services files noted several lease agreements. The first recorded lease agreement was in 1983 and last recorded lease ended in 2003.

#### 5.6.3 Nez Perce Tribe Executive Committee (NPTEC)

Research of Nez Perce Tribal firework stand lease agreements indicate multiple years of 1 month lease agreements with the last recorded lease ending July 9, 2014.

## **5.6.4** BIA, Tribal Land Services, and NPTEC Lease Records Table 5. BIA, Tribal Land Services, and NPTEC Lease Records

Lease Holder	POC	Use	Dates	Notes	Source of Information
Clearwater Telephone Line		Right-of-way for telephone line	07/24/1916 - Perpetual		BIA
Richardson Sawmill	Dale Richardson, Owner	Sawmill	1943-1980		Interview
Washington Water Power Co.		Right-of-way for transmission line	03/13/1956 - Perpetual		BIA
DeAtley Corporation	Neil DeAtley,	Sand, gravel, asphalt	06/10/1966 – 06/10/1976	Uncertain of lease dates	BIA
Department of Highways		Rock quarry	04/01/1970 – 08/01/1970	Uncertain of lease dates	BIA
Dale Richardson/ contract with Bill Cummings	Dale Richardson Bill Cummings	Contract rock crushing, 500 tons	12/27/1974	All rock was used on site	BIA Realty papers
Orofino Celebrations	also known as Orofino Celebrations, Inc.	Annual three day festival	09/18/1983, 08/15/1985, 09/14/1986	Uncertain if 1985 and 1986 leases were approved	BIA
Sverdsten Logging Co., Inc.	Terry Sverdsten, President	Sorting yard \$250/mo	11/01/1983 – 01/31/1984	Initial Period for 6 mo, perhaps with extensions	BIA
Orofino Gun Club	Sharon F. Yepa, Superintendent	Shooting range	01/01/1985 – 12/31/1989, 01/01/1990 – 04/30/1995		BIA and Land Services
Seubert Excavators, Inc.	Thomas C. Reiner, Vice President	Stockpile asphalt paving rock and set-up an asphalt batch plant, and concrete	01/01/1987 – 12/31/1991	Uncertain of lease begin date, lease approved 10/22/87	BIA
Fireworks Stand (Double Shot Fireworks)	Emmitt Taylor, Sr.; Owner	Fireworks stand	01/01/1991 – 12/31/1997		BIA
WASCO, Inc.	Carol Holloway, President	Place and compact clean fill	07/01/1997 – 09/01/1997	Revocable Permit	BIA
Pamela Hudson White Eagle	Pamela Hudson White Eagle	Gift shop	05/27/1993; 01/01/1999 – 12/31/2003	Uncertain of first lease start and end dates	BIA and Land Services
Avista Corporation		Right-of-way for distribution systems	03/16/1999 – 02/28/2044	Uncertain of lease start date, lease approved 03/16/1999	BIA
Virgil Miller	Virgil Miller	Fireworks Stand	06/09/2014- 07/09/2014	lease approved by Resolution 03/16/1999 NP 14-334	

#### **5.7 Historical Use Information on Adjoining Properties**

The following table summarizes the lease history for properties adjoining TU-45, but is not all inclusive.

Table 6. Historic use of adjoining properties

TU	Lease Holder	POC	Use	Dates	Notes	Source of Information
TU -	Isaac and	Isaac and	Doughnut	03/08/1966 -	Lease	BIA
44	Katherine	Katherine	Shop &	06/14/1978	cancelled	
	Bonaparte	Bonaparte	Luncheon		because	
			Site,		operated as a	
			restaurant		home site	
					and not a	
					business	
TU -	Zain	Zain	Logging	05/1967	Logged	BIA
44	Wilcox	Wilcox			Gilbert	
					Grade #2	
					logging unit	
TU-	Harland	Harland	Grazing	01/01/1974 –		BIA
44C	"Hi" Hood	"Hi" Hood	livestock	12/31/1977		77.1
TU-	Cloise	Cloise	Grazing	09/03/1973	Uncertain of	BIA and Land
44C	Moore	Moore	livestock		lease begin	Services
		_			and end date	
TU-	Jean	Jean	Grazing	02/12/1974;	Uncertain of	BIA and Land
44	MacArthur	MacArthur	livestock	and	first lease	Services
				01/01/1979 -	begin and	
TEXT Y	3.6	3.6	TT	12/31/1983	end date	DIA 11 1
TU -	Mary	Mary	Home site	01/01/1970 -		BIA and Land
44	Moody	Moody		12/31/1974		Services
				and 07/01/1981 –		
				06/30/1986		
TU -	Donald	Donald	Home site	07/01/1981 –		BIA and Land
44	Moody	Moody	110me site	06/30/1986		Services
44	Broncheau	Broncheau		00/30/1980		DEI VICES
TU -	Donald	Donald	8ft. trailer	01/23/1996 –	Uncertain of	BIA and Land
44	Broncheau,	Broncheau,	storage	02/23/1996	lease dates	Services
77	Jr.	Jr.	Storage	02/23/1770	icase dates	DCI VICCS
TU-	Larry	Larry	Home site	01/01/1997 –	Lease not	BIA
44	WhiteEagle	WhiteEagle	Tionic site	12/31/2022	approved	Dill
	,, intellagie	,, intellugie		12/31/2022	until	
					07/06/2000,	
					25 year lease	
	L	l		I.	25 Jean Tease	

#### **6.0** Site Reconnaissance

A reconnaissance inspection of the subject property was conducted on June 23, 2009 by Julie McWhorter, AmeriCorps Intern, and Lily Kauffman, Nez Perce Economic Development representative (Appendix 3). A site inspection was conducted on July 31, 2009 by Mr. Brackney and Mr. Sutherland, who were accompanied by Mr. D. Richardson (Appendix 4). An additional site visit with Dale Richardson, Dale Cox (attorney), and Brent Richardson (son) was conducted on April 7, 2014 to discuss the location of the UST identified by geophysics (Appendix 6). There were no visual or physical obstructions of the subject property.

Extensive site assessment work was conducted by Environment and Ecology as part of Targeted Brownfield Assessment in 2009 <sup>3</sup> and the TRP is conducting a Phase II ESA that began in 2013 consisting of soil sampling, monitor well drilling, and four quarters of well sampling (in progress).

#### 6.1 General Subject Property Setting

The Fisheries Office building and Community Center have a septic system and a small capacity potable water potable water well on the west side of the property that currently meets Safe Drinking Water Standards, but is not yet registered with EPA. It appears that the WhiteEagle Gift Shop does not have plumbing. All buildings can be reached by dirt or gravel roads. Gravel parking lots surround most of the office buildings, Community Center, and gift shop.

#### **6.2 Exterior Observations**

Exterior inspections were conducted of the mill site and the downrange portion of the Orofino Gun Club located on the opposite (north) side of the Clearwater River on TU-46. No conspicuous soil staining was observed. Old concrete foundations from the sawmill and subsequent operations are present, some in place and others disturbed, and tramp metal is commonly observed. Demolition debris, commonly covered with blackberry vines are prominent around the log pond.

#### **6.3 Interior Observations**

No interior inspections were conducted on the site with the exception of the Transformer Building. Remediation of PCB contaminated soil was conducted within the building, including post remediation soil sampling and monitor well drilling outside of the building. No residual PCB contamination has been identified. For detailed description see 8.0 Findings.

#### 7.0 Interviews

Interviews were conducted with individuals knowledgeable of TU-45. Information obtained from the interviews appears in the appropriate sections of this report. Copies of the interview documentation can be found in the Appendix Sections 16.3.1, 16.4.1, 16.4.2, and 16.4.3.

The following people were interviewed:

<sup>3</sup> Riverside/Richardson Saw Mill (TU-45), AARA Funded, Targeted Brownfields Assessment, Orofino, Idaho, December 2011; by Ecology and Environment, Inc.

**Table 7. Interview summary** 

Date	Name	Title	Organization	
05/22/14	Thomas C. Reiner	Vice President	Seubert Excavators,	
			Inc.	
05/22/14	Terry Sverdsten	President	Sverdsten Logging Co.,	
			Inc.	
08/03/09 & 03/18/14	Dale Richardson	Owner	Richardson Sawmill	
01/25/12	Pam White Eagle	Resident/Owner	White Eagle Gift Shop	
01/25/12	Larry White Eagle	Resident/Owner	White Eagle Gift Shop	
08/08/10	Paul Brusven	Employee	NPT	
03/10/10	Melvin Joye	Operator	Fireworks stand	
03/08/10	Emmitt Taylor, Sr.	Operator/Owner	Double Shot Fireworks	
	(wife Jackie)			
03/08/10	Sherman Sprague	Employee	NPT	
03/08/10	Leroy Seth	Employee	IHS	
03/04/10	Casey McCormack	Employee	NPT	
07/13/09	Marcus Oatman	Employee	Formerly Richardson	
			Sawmill, currently NPT	
Pending	Mike Penney	Former Executive	NPT	
		Director		
Pending	Sharon F. Yepa	Superintendent	Orofino Gun Club	
Pending	Carol Holloway	President	WASCO, Inc.	
Pending	Neil DeAtley	Owner	DeAtley	

#### 8.0 Findings

Based on the information gathered and on observations made during this investigation, the Phase I ESA has revealed there are nine findings associated with the subject property.

#### 8.1 Poly Chlorinated Biphenyl (PCB)

Files gathered from BIA and Tribal Land Services Division indicate that after the sawmill ceased operation three-forty gallon transformers containing PCB oil were tipped over and PCB oil was spilled on the earthen floor of the Power House so that the copper could be salvaged from the transformers by unknown people (see Figure 1).

On May 6, 1982, Henry Crawford and Charles P. Mathes, Realty Officer for the BIA, collected a surface soil grab sample and recorded both on a hand written note and memorandum that 180.2 ppb of PCBs were detected. (Note: it was not clear what this concentration represented.) IHS then contacted Mr. Richardson and instructed him to excavate the contaminated soil. BIA Reality Office also requested disposal of the PCB *and creosote*. Mr. Richardson stated that he hand-excavated 13-fiftyfive gallon drums of PCB contaminated soil, presumably based on visual contamination, from the inside of the generator building, under the supervision of Henry Crawford, US Indian Public Health Service.

On May 20, 1982 Henry Crawford received a letter from Dale Geaudreau, North Central Health District, Lewiston, ID, acknowledging the sample analysis by the Idaho Bureau of Laboratories

and that because the concentration was less than 50 ppm, the containerized soil could be disposed in the Orofino Landfill. The cleanup was certified in a letter from Mr. Henry W. Crawford, Service Unit Sanitarian Northern Idaho IHS, to Mr. D. Richardson, dated July 26, 1982.

However, BIA records later suggest the cleanup was not completed. A BIA letter documents that on January 16, 1986 Messrs. Ted Thompson and Tom Remmington observed oil-soaked soil on the floor of the Transformer Building. Based on this document it is unclear whether the contamination observed in 1986 was the original contamination or new contamination.

In an interview with Mr. Leroy Seth; former Community Health Educator, Acting Sanitarian, and Interim Superintendent of IHS; he stated that he was knowledgeable of the 1986 report of PCB staining. He remembered checking the soil and rocks for staining in the transformer building and around the power poles. He believed the staining in the transformer building to be from the original PCB spill, because the transformers were removed at the time of his inspection in 1986 (Appendix 5).

Currently, the transformer building has a cement floor. During the 2010 EPA funded Targeted Brownfield Assessment, Environment and Ecology (E&E) attempted to drill through the concrete and sample the soil. However, they misunderstood the layout of the building and tried unsuccessfully to drill through the concrete where the transformers sat. The area where the PCB oil was spilled is now covered by concrete that was poured after 1986.

In 2013, Tribal staff rented a jackhammer and broke three holes in a triangular pattern in the newer concrete, and using sampling protocols established in the EPA-approved Environment and Ecology Sampling and Analysis Plan (SAP) (see Figure 3). Tribal staff collected three soil samples using a hand augur at depths of 1.7 to 2.2 ft and analyzed them for PCB (Aroclor) utilizing EPA 8082 at Anatek Labs, Moscow, ID. The analyses for all three samples were reported as non-detect with a practical quantitation limit (PQL) of 0.1 mg/kg (see Table 8). This investigation was documented in a report by Judy Goodson dated August 2, 2013.

Monitor well MW#3 (35 ft. deep) was drilled 10 feet from east side of Transformer House as part of the Phase II ESA to assess the groundwater for PCB contamination (see Figure 1 and Figure 2). Groundwater has to date been sampled twice in MW#3; no PCB's were detected in drill cuttings or groundwater samples. During the second site visit with Dale Richardson in 2013, Mr. Richardson was questioned about the PCB cleanup. Dale described shoveling PCB contaminated soil into barrels until the Tribal representative told him the cleanup was adequate. Since the only chemical analysis from the initial cleanup was 182 ppb and no PCB contamination has been found during the TBA and the Phase II ESA, it is believed that the initial PCB cleanup was adequate and no further PCB assessment in this area is needed.



Figure 2. Drilling MW-3 adjacent to Power House

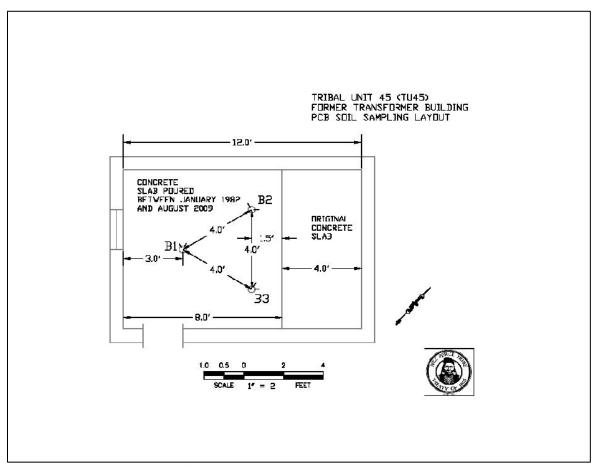


Figure 3. Power House, PCB sample locations

Table 8. PCB Sample Results, Power House.

			Sample	Sample	Sample
Parameter(s)	Units	PQL	B1	B2	В3
Aroclor 1016 (PCB-1016)	mg/Kg	0.1	ND	ND	ND
Aroclor 1221 (PCB-1221)	mg/Kg	0.1	ND	ND	ND
Aroclor 1232 (PCB-1232)	mg/Kg	0.1	ND	ND	ND
Aroclor 1242 (PCB-1242)	mg/Kg	0.1	ND	ND	ND
Aroclor 1248 (PCB-1248)	mg/Kg	0.1	ND	ND	ND
Aroclor 1254 (PCB-1254)	mg/Kg	0.1	ND	ND	ND
Aroclor 1260 (PCB-1260)	mg/Kg	0.1	ND	ND	ND
PCB 8082 (total)	mg/Kg	0.1	ND	ND	ND
%moisture	Percent		6.70%	6.10%	6.50%
Sample Depth	Inches		18"	18"	18"

#### **8.2** Creosote Treatment Facility

The BIA and Tribal Land Services Division files document that a creosote wood treatment facility existed on TU-45. In the initial interview with Dale Richardson in 2009, it was disclosed that the saw mill had a contract to cut 4 inch x 6 inch x 2.5 inch wooden blocks, treat them with creosote, and deliver them to the Trent aluminum smelter in Spokane, Washington, for use as replaceable wooden pavers inside the smelter complex. The contract lasted for about two years sometime in the late 1960's or 1970's. For a detailed review of the creosote treatment please see interview notes with Dale Richardson including photographs of equipment, dated 8/3/2009 (Appendix 4).

During the 2010 EPA funded Targeted Brownfield Assessment<sup>4</sup>, Environment and Ecology (E&E) used a direct-push drill. Of particular concern is boring #CT03SB16, which had the highest concentrations of PAHs measured in soils at a depth of 12-15 ft (Table 9). The soil boring encountered groundwater at 15 ft, but also met refusal at this depth. Insufficient water was present in the boring to collect a water sample for semi-volatile organic (SVOC) analysis, so no information is available from that boring on the groundwater concentrations of creosote-related contaminants. Headspace analysis with a Photo Ionization Detector (PID) was reported at 1,527 ppm. Chemical concentrations of overlying sediments at 4-8 ft and 8-12 ft had PAH concentrations of one to two orders of magnitude less than the sample analyzed from 12-15 ft.

Using soil sampling protocols developed for E&E's Targeted Brownfield Assessment, and previously approved Nez Perce Standard Operating Procedures (SOP) for soil sampling, an excavation and sampling project was conducted at the creosote treatment area and documented in memorandum dated August 14, 2013. Soil grab samples were collected on approximate 8 ft. centers on the east and south sides of the concrete slab (Figure 4 and Figure 5). Sampling results from investigations from 2010-2013 are presented in Table 9 including 23 detected chemicals, including 14 chemicals that exceed IDTL concentrations. These SVOCs are believed to be constituents of creosote.

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<sup>4</sup> ibid

It should be noted that all soils sampled to date represent relatively dilute concentrations and are not representative of pure product. The observed chemical concentrations are highest at the deepest depths sampled with the soil boring with lessor concentrations in the overlying sediments. This suggests that creosote related chemicals may have spread laterally on top of the water table from the source area. It also suggests that we have not sampled in the source area, perhaps because the configuration of the treatment facility is not well understood. Because these chemicals are both non-polar and predominantly denser than water, a pulse of free product may have infiltrated the sediments and lie pooled on the underlying crystalline bedrock, anticipated to lie 40-50 ft. below ground surface.

Table 10 summarizes the groundwater samples collected from the four monitoring wells and the drinking water well to date. Only traces of SVOCs were detected in one well (MW-4) and these do not exceed IDTL concentrations. However, post drilling interpretation of the groundwater flow direction is approximately 45 degrees to the original hypothesized groundwater flow direction prior to drilling. The traces of SVOC in MW-4 and soil sampling and previous TBA borehole analysis suggest that additional drilling on the north side of the creosote treatment area is warranted.



Figure 4. Creosote treatment area, 2013.

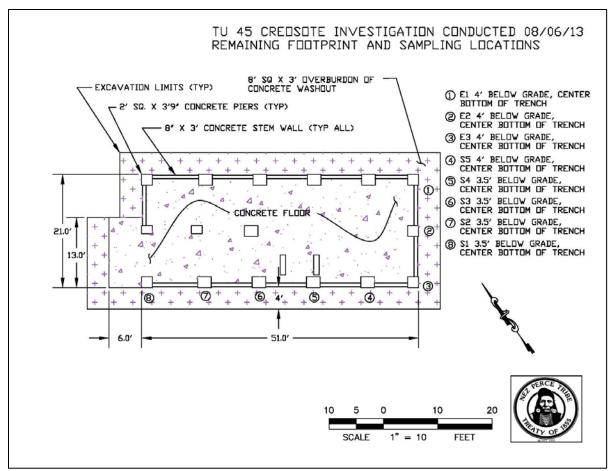


Figure 5. Creosote treatment area soil sample locations.

Table 9. Creosote treatment area, soil sample results.

	get Levels	S Anatek Lab Results								TBA August 2010 Findings				
(IDTL) For Soils			Soil Sampling August 2013								ВН	ВН	ВН	
				F1	E2	E3	\$1	S2	53	<b>S4</b>	\$5	CT03SB08 4' - 8' PID: 26.5 ppm	CT03SB12 8' - 12' PID:1282 ppm	CT03SB16 12' - 15' PID: 1527 ppm
Parameter														
	<u> </u>													
	IDTL (mg/kg)	Critical Pathway	Critical Receptor	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1-Methylnaphthalene	NL			0.093	0.149	0.472	ND	ND	0.154	0.065	0.101			
2,4-Dimethylphenol	0.038			0.095	ND	0.106	ND	ND	ND	ND	ND			
2-Methylnaphthalene	3.310	GWP	GWP	0.344	0.451	1.110	ND	0.072	0.188	0.058	0.088	0.14	1.5	53
3+4-Methylphenol	0.141	GWP	GWP	0.128	0.073	0.155	ИD	0.073	0.077	ND	ND			
Acenaphthene	52.264	GWP	GWP	0.232	0.130	0.315	ND	0.170	0.231	0.368	0.109	0.31	8.9	37
Acenaphthylene	78.017	GWP	GWP	2.390	1.480	1.630	ND	5.330	2.990	2.750	0.704	0.79	0.31	9.
Anthracene	1040.119	GWP	GWP	1.720	1.840	2.270	ND	5.660	7.420	3.080	1.490	0.79	2.8	6
Benzo(ghi)perylene	1177.982	Surf Soil	Child	9.070	7.680	6.680	0.086	12.300	7.340	6.440	2.410	5	0.41	5.
Benzo[a]anthracene	0.042	Surf Soil	Age-Adj	18.900	12.200	13.200	0.056	27.900	13.600	14.400	5.760	8	3.6	7
Benzo[a]pyrene	0.042	Surf Soil	Age-Adj	22.600	17.600	15.600	0.116	32.500	18.400	17.600	6.400	12	1.5	2
Benzo[b]fluoranthene	0.422	Surf Soil	Age-Adj	44.200	34.900	30.600	0.259	58.700	35.000	29.700	12.500	19	2.5	- 4
bis(2-Ethylhexyl)phthalate	11.836	GWP	GWP	0.217	ND	ND	ИD	0.305	ND	ND	ND	3.6	0.066	1.
Carbazole	NL			0.351	0.256	0.269	ND	0.238	0.232	ND	ND	3.6 U	1.1	3
Chrysene	33.366	GWP	GWP	20.100	19.400	17.300	0.114	35.900	25.200	19.600	8.750			
Dibenz[a,h]anthracene	0.042	Surf Soil	Age-Adj	4.500	3.500	2.990	ND	7.950	3.930	3.360	1.160			
Dibenzofuran	6.099	GWP	GWP	0.351	0.389	1.010	ND	0.077	0.107	ND	0.096	0.27	5.8	21
Fluoranthene	363.512	GWP	GWP	11.500	4.540	4.960	ИD	26.600	10.200	11.000	4.110	7.1	19	42
Fluorene	54.836	GWP	GWP	0.355	0.455	0.722	ND	0.226	0.443	0.376	0.128			
Indeno[1,2,3-cd]pyrene	0.422	Surf Soil	Age-Adj	9.340	7.740	6.540	0.071	15.100	7.930	6.870	2.420	6	0.5	6.
Naphthalene	1.144	Subsurf Soil	Child	0.765	0.981	1.770	ND	ND	0.214	ND	0.165	0.26	0.64	77
Pentachlorophenol	0.009	GWP	GWP	ND	ND	ND	ND	ND	ND	ND	ND			
Phenanthrene	79.042	GWP	GWP	1.250	1.770	2.780	ND	0.500	1.170	0.531	0.290	1.8	32	89
Pheno	7.358	GWP	GWP	0.091	0.058	0.097	ND	0.064	ND	ND	ND	3.6	0.016	5.
Pyrene	359.215	GWP	GWP	8.460	1.980	3.090	0.053	21.000	21.300	6.360	3.370	3	10	32
%moisture				5.9	6.1	14.4	3.2	4.6	14.4	23.3	6.5			
*GWP = Ground Water Prot	ection Via So	ils Leaching t	to Groundw	ater										
NL = Not Listed in IDTL														

Table 10. Monitor well sample results, TU-45

	Parameter	dies		ine little	il fil		digital series	ghiteete jist.	Surifice Surifice	nadite nadite	gate gate	ing the	arthere whethy	etravetore la	it de la constant de
Un	its	mg/L		mg/L	ug/L		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
Anatek Lab Results															
Sample LOC	Date														
	12/27/2013	<0.63	<0.25	<0.63	5.21	ND	ND	ND	0.56	ND	ND	ND	ND	ND	
MW1	5/16/2014	ND	ND	ND	2.82	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	-,-,-														
	12/27/2013	<0.63		<0.63	16.9	ND	ND	ND	0.56	ND	ND	ND	ND	ND	
MW2	12/27/2013 DUP	< 0.63	<0.25	<0.63	16.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	5/16/2014	ND	ND	ND	12.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	12/27/2013	<0.63	<0.25	<0.63	16.4	ND	ND	ND	ND	ND	ND	ND	5.06	ND	
MW3	5/16/2014	ND	ND	ND	85.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	12/27/2013	<0.63	<0.25	<0.63	2.04	ND	5.35	0.55	ND	2.16	14.3	0.61	2.63	ND	
MW4	5/16/2014	ND	ND	ND	6.89	ND	ND	ND	ND	ND	ND	ND	ND	1.060	_
	5/16/2014 DUP	ND	ND	ND	6.57	ND	ND	ND	ND	ND	ND	ND	ND	1.240	
Water WELL	2/24/2014	ND	ND	ND	0.516	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Idaho Initial Defa	ult Target Levels														
(IDTL) For Groundwater		NL	NL	NL	15.0*	NL	625.7	6.0	2085.7	NL	41.7	417.1	6257.1	208.571	
Critical Pathway							Ingesti on	Ingesti on	Ingestio n		Inges tion	Ingest ion	Ingestio n	Ingestion	
Critical Receptor							Risk- Based	MCL	Risk- Based		Risk- Based	Risk- Based	Risk- Based	Risk- Based	

#### **8.3 UST**

The potential presence of a 1000 gallon UST at the "Gas House," visible on historic aerial photographs, was disclosed by Dale Richardson in an interview on 8/3/2009 (see Appendix 6). During the initial interview with Mr. D. Richardson, he stated that a gasoline underground storage tank (UST) was utilized during the sawmill operations and that he believed the UST had not been removed. He gave an "arm-wave" in the general direction where he thought the tank was located, but couldn't be sure because all the buildings were gone and no reference points remained.

In March 2013, the Nez Perce LUST Assessment Program contracted with Geophysical Survey LLC to evaluate five separate locations on the Reservation for the presence of USTs, including the approximate 30 x 30 meter area identified by Mr. Richardson at TU-45. A Geophysical Site Investigation Report was submitted to the Tribe on March 16, 2013 and stated that no tank was found in this survey at TU-45, although a buried utility line and buried debris 1-2.8 meters deep were found. The geophysicist stated the former mill site "would be conducive to a magnetometer or EM-31 survey with GPS navigation for a complete UST investigation of the area." The Tribe again contacted with Geophysical Survey to search a larger area on the property, including the area previously investigated. In a report dated 12/31/2013 the contractor identified a 300-500 gallon UST at a location independent of the Gas House (Appendix 6).

The TRP conducted an additional on-site interview with Dale Richardson, Dale Cox (Attorney), and Brent Richardson (son) at TU-45 on 3/18/2014 to review the location of UST identified by Geophysical Survey. Dale Richardson stated that the discovered UST would have been located

inside of a sawmill building and not at the location of the Gas House. He went on to state that a UST in this location would have been incompatible with sawmill operations. A detailed discussion of the UST is provided in a letter from Kevin Brackney to Rob Rau, EPA UST Program dated April 7, 2014 (Appendix 6).

A review of BIA lease records and interviews of operators with the potential to utilize a UST dated after the Richardson Mill was shut down include:

- Sverdsten Logging Co., 11/01/1983 1/31/1984, used as a log sorting yard. Judy Goodson conducted a phone interview with Terry L. Sverdsten former president of Sverdsten Logging, Inc., on 05/22/2014 regarding business activities that might involve the placement of a UST on site (Appendix 7). Mr. Sverdsten stated that all fuel was hauled in from Orofino.
- Seubert Excavators, Inc. 10/22/1987 12/31/1991 used as an asphalt batch plant and a concrete batch plant. Judy Goodson conducted a phone interview with Thomas C. Reiner, President, on 05/22/14 regarding business activities that might involve the placement of a UST at TU-45 (**Appendix 8**). Mr. Reiner stated that fuel hauled in using portable fuel tanks and an above ground storage tank mounted on a stand.

At this time the TRP believes they have exhausted all reasonable methods for determining ownership of the UST.

#### 8.4 Orofino Trap Range

In an interview with Paul Brusven, former employee of WRD, it was disclosed that the Orofino Gun Club operated a Trap Range on TU-45 where the Fisheries Office now stands. The range deposited significant quantities of lead downrange in a northeast direction on the opposite bank of the Clearwater River, which is on TU-46. In an investigation for the NPT Executive Committee during 1992-1993, Mr. Brusven collected soil samples from the TU-46 river bank above the high water mark. His samples visually documented large amounts of lead shot from a shovel full of sand. Significant quantities of lead shot presumably also landed in the river and deposited on the river bottom.

In 2009 Messrs. Brackney and Sutherland panned a shovel-size scoop of sand from TU-46 riverbank and removed a tablespoon of shot (Figure 6).

In an interview with Sherman Sprague, NPT Fisheries employee, he stated the trap house was under the current footprint of the Fisheries office. He reported seeing broken clay pigeons and spent shells on the ground prior to the development of the Fisheries office (see Figure 7). The TBA collected numerous surficial sediment samples in the vicinity of the Trap House, but did not document a significant quantity of contamination. However, they could not physically reach the down range portion of the site on TU-46 so no samples were collected there.

## 8.5 Demolition Debris In and Around Log Pond

A memo June 10, 1982 from the Northern Idaho Agency Superintendent, Mr. Charles Mathes, requested Messrs. J. and D. Richardson to remove waste material that was thrown into the pond. In a related interview a Mr. Joye stated that some of the waste material in the log ponds was

large beams from disassembled sawmill buildings. The beams were 12 X 12 inches and 8 X 12 inches in size. He stated that the public recycled the beams from the log pond (Appendix 5).

WASCO, Inc., was issued a permit to place and compact "clean fill" consisting of granular materials (soil and rock) on the mill site for a two month period from July-August, 1997. Concrete and asphalt chunks were to be a maximum of 2 ft in diameter and compacted in lifts not to exceed 8 inches. Tree limbs or branches were not allowed and large boulders were to be placed around the outside of the embankment.

According to BIA and NPT Land Services files, WASCO, Inc, illegally dumped four truck loads of demolition debris on the banks of the log pond at TU-45 on October 27, 1998. Mr. Strom, a WASCO, Inc. employee, thought that the company had permission to dump fill material and rock at TU-45. Photographs taken at the time of the incident depict broken asphalt and concrete (Figure 8).

The geophysical survey conducted in November 2013 also identified an area of anomalously high soil conductivity (see Appendix 6). We do not know the cause of the electrical conductivity, but in walking over the surface of the anomaly, it also appears to contain demolition debris. In reviewing the Revocable Permit with WASCO there is a sketch map showing where clean fill is to be deposited and compacted. It's possible that the electrical conductivity anomaly and the compacted clean fill overlap (see Appendix 9).

## 8.6 Perchlorate contaminated groundwater

Seasonal fireworks stands have operated at TU-45 from 1991 to 1997 and again through 2014. While the intervening years are not well documented it is likely that fireworks are seasonally sold at TU-45 as an ongoing practice. The TRP observed three or four piles of highly weathered discarded fireworks on the property (Figure 10). Initially, it was thought that the fireworks were unexploded, but later it was concluded that the solid material at the base of the fireworks was probably a clay weight used to stabilize the firework during ignition.

The TRP was concerned about the environmental effects of the fireworks and requested that soil and groundwater be evaluated as part of EPA's TBA. Perchlorate was identified in numerous soil samples and a single groundwater sample that significantly exceed the proposed drinking water standard for perchlorate (see Figure 1). The large flat area on the west side of the property appears to be the primary zone where fireworks were ignited. A cursory review of fireworks manufacturing identified that both ammonium and potassium perchlorate are used as accelerants.

In the Tribe's ongoing Phase II ESA perchlorate has been identified in all four wells and up to 85.6~ug/L in MW-3 (

Table 10). Curiously, traces of perchlorate were also detected in the drinking water well located distally from the fireworks detonation area in the deeper granite aquifer constructed to be isolated from the surficial aquifer.

In an interview with Mrs. Jackie Taylor; wife of Mr. Emmitt Taylor, Sr.; she stated that their fireworks stand was located near the highway in the driveway to the Fisheries office. She stated that the fireworks stand near the White Eagle gift shop was operated at different times by Melvin Joye and two brothers from Orofino, Idaho (see Appendix 5).

Mr. Joye stated that he operated the fireworks stand near White Eagle gift shop for approximately five to six years from 1987 to 1992. He was unsure of the years. He stated that the two brothers that also used the stand were Rob and Scott Miller (see Appendix 5). While modern fireworks stands leases are less well documented, it is believed that fireworks stands are an annual presence around July 4<sup>th</sup>.

Orofino Celebrations leased the property on three occasions in 1983, 1985, and 1986. At a presentation by Kevin Brackney to the Orofino Chamber of Commerce, a Chamber member stated that Orofino Celebrations did not ignite fireworks at TU-45, but only used the mill site for truck driving and log skidder contests and all of Orofino's fireworks displays were at the City Fairgrounds. A review of the lease agreements between Orofino Celebrations and the Tribe confirms that truck driving and log skidder contests were the main purpose of the leases.

## 8.7 Possible pentachlorophenol contaminated soil and groundwater

Although pentachlorophenol (penta) was not originally identified through interviews as a potential contaminant, the TBA documented the presence of penta in multiple locations including soil and groundwater in two boring (see Figure 1). Penta contamination was also measured in surficial soils around power poles that were likely treated with penta, and in the vicinity of the demolition debris. Because penta has a very low drinking water standard (0.001 ug/L) it's presence in groundwater is of obvious concern. The four monitor wells drilled and sampled by the TRP have not documented its presence although they were not located in the same area as the significant borings drilled and sampled during the TBA. Additional data is needed to confirm the presence or absence of penta contamination of the deep subsurface. Penta detections in the immediate vicinity of penta treated wood is not considered indicative of larger contamination problem.

## 8.8 Possible Lead-Based Paint Contaminated Soil

White Eagle gift shop was constructed around 1950. Paint used on the gift shop was likely lead-based, since it was built prior to the 1978 ban on lead in paint. The soil surrounding the gift shop may be contaminated with lead from paint chips flaking. Two soil samples were collected during the TBA and documented lead concentrations of about 170 mg/kg. While this concentration is probably above background it may not exceed the action level for cleanup. In any case, the building still has peeling paint so soil characterization for lead is probably meaningless without first dealing with the peeling paint. Additionally, other buildings around the Fisheries Complex may also have lead paint.

#### 8.9 Sawmill water line with lead sealed joints

The water supply piping network for the Richardson Sawmill was not decommissioned. Underground pipes are present in many areas at the site and have been partially documented by the geophysical survey. A water supply pipe is also located in the Clearwater River (Figure 13). Mr. D. Richardson stated that that pipes lead sealed joints. The presence of these lead sealed joints may or may not be significant.

## 8.10 Seubert Excavators Asphalt and Concrete Batch Plants

Seubert excavators operated an asphalt and concrete batch plant at TU-45 over the period 1987-1991. Several large preformed concrete rings and lids are stacked around the south edge of the site that appear to been abandoned on the site by Seubert. The creosote treatment area appears to have been a location where concrete trucks were washed out with a several foot thick layer of weakly cemented aggregate consisting of river pebbles, gravel, sand, and light grey to white powder--likely representing spent concrete--that appeared to have settled out from suspension from water. There are also anecdotal reports were also given about white plumes of water entering the Clearwater River. These may have also been related to washing out of concrete trucks.

#### **8.11 Off-Site Environmental Concerns**

In an investigation for the Tribal Executive Committee during 1992-1993, Mr. Brusven collected sand samples from the TU-46 river bank where he recovered large amounts of lead shot. Significant quantities of lead shot presumably also landed in the river and deposited on the river bottom. See section on "Orofino Trap Range" for further discussion.

# 9.0 Opinions

#### **9.1 PCBs**

Significant resources have been invested in documenting possible PCB soil and groundwater contamination. To date none has been found. The 1986 BIA letter appears to document either the original transformer oil contamination was not cleaned up or that new contamination occurred after Mr. D. Richardson's cleanup efforts. Also, Mr. Seth believes the original contamination was not cleaned properly. However, it appears that the oil contamination documented in 1986 is unrelated to the PCB spill. The TRP will continue to sample MW-3-located adjacent to the Transformer House--for another two quarters and analyze the water for PCB, in addition to the other contaminants of concern. Assuming that the groundwater continues to be non-detect for PCB, no additional work is recommended.

#### 9.2 Creosote Treatment Area

The TRP has documented soil contamination with SVOCs believed related to creosote, and trace SVOCs in groundwater from MW-4. Because the measured groundwater flow direction is northerly and not towards MW-4, there remains the possibility that SVOC contamination may be a problem. Additional monitor wells are needed to fully assess the creosote contamination. If groundwater is not significantly contaminated and not likely to affect either proposed drinking water supplies or the Clearwater River, then a decision will have to be made regarding the contaminated soil. The measured contamination is located at greater than four feet below ground surface. If the public cannot physically contact the contamination, then perhaps the

contaminated soil can be managed through institutional controls prohibiting excavation in the identified areas without proper personal protective equipment and properly disposing of the contaminated excavation spoils. However, we currently do not know enough about the distribution of contaminants in the subsurface. Additional monitor wells should be drilled to better assess this potential contamination.

## 9.3 UST

Previous experiences with USTs on the Reservation suggest that approximately 30% leaked and that they should all be decommissioned, removed by excavation (where possible) and the soil sampled for VOCs. At that time the magnitude of contamination can be assessed and an appropriate decision made as to subsequent remediation. A review of Figure 1 shows that there is a 50 ft separation between the location of the penta contaminated boring and the location of the UST identified by geophysics. This suggests the remote possibility that the UST may be related to the use of penta at the site. Out of an abundance of caution, soil samples collected in the vicinity of the UST should also be analyzed for penta.

### 9.4 Orofino Trap Range

The majority of the lead shot likely either in the river on TU-46 on the opposite bank of the Clearwater River. Fast current, boulder river bed, and threatened and endangered species (steelhead, salmon, and bull trout) make the investigation and remediation of the river bed challenging. TU-46 is a steep rocky hillside with no road access because of topography and isolation between the river and the railroad tracks with no ability for egress across the tracks. While substantial amounts of lead shot can be physically identified through gravity separation techniques, the site is physically isolated from TU-45 by the Clearwater River. Redevelopment of TU-45 is not dependent on assessment of lead shot on TU-46. Assessment of the shot would be difficult and the cleanup would likely cause substantial environmental harm. No lead shot assessment activities are recommended for either the river bed or TU-46.

#### 9.5 Demolition debris in and around log pond

The TRP believes that the possibility of waste materials buried around the log ponds deserves further investigation. The physical characteristics should be determined as they may be an impediment to site redevelopment and landscaping. Additionally, they may contain materials that are harmful to the environment. The presence of the electro-magnetic conductivity anomaly may represent hazardous materials and should be investigated with trenching, visual characterization, and chemical analysis, if warranted.

## 9.6 Perchlorate groundwater contamination

Perchlorate contamination exceeding the proposed drinking water standard has been confirmed. The distribution of this contaminant will control where groundwater can be extracted to supply domestic water for project redevelopment. This is a significant environmental problem that needs to be assessed by additional monitor well drilling and sampling. Finding a source of clean drinking water is a high priority for site redevelopment. The Tribe may need to consider passing an ordinance prohibiting the detonation of fireworks over this vulnerable aquifer.

#### 9.7 Pentachlorophenol contaminated soil and groundwater.

The presence of penta in groundwater at a depth of 16 ft below ground surface indicates that it may be a significant environmental problem that goes beyond contaminating soil adjacent to penta treated wood. It is proposed that penta be included in the extended semi-volatile analysis (EPA 8270), which is also needed to assess the creosote contamination. The possibility exists that a penta treatment area may be found, perhaps associated with the UST. It should be noted that penta was specifically analyzed at the creosote treatment area and none was found. We are currently puzzled about the presence of penta in groundwater and do not have a good explanation for its presence at TU-45. Continued analysis of groundwater for all wells is recommended.

#### 9.8 Possible Lead-Based Paint Contaminated Soil

Two soil samples collected during the TBA were not particularly high (circa 170 mg/Kg lead). Because the building was likely painted with lead based paint and this paint is currently pealing, it is likely contaminating the soil. The peeling paint must be addressed first. A second building storage shed constructed prior to 1978 is located on TU-45 near the Fisheries office. The soil surrounding this building may also be contaminated from lead-based paint. The presence or absence of the lead based paint is not unique to this site and not a significant environmental contamination issue.

#### 9.9 Other On-Site Concerns

Water supply piping network does not currently appear to be an environmental hazard. If the piping is removed, it should be properly recycled during an appropriate phase of project reconstruction. The lead sealed joints may eventually lead to corrosion and contamination of the localized soil around the joints. Because lead was historically used in many manufactured materials (e.g., paint, leaded gasoline, lead shot, etc.) these lead sealed pipe joints are likely de minimis concentrations that do not warrant special treatment, unless the pipe will be removed for other reasons.

## **10.0 Conclusions**

We have performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527 of MP 45.4, HWY 12, Orofino, ID 83544, the property. Any exceptions to, or deletions from, this practice are described in Section 11.0 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property except for the following:

- 1. Creosote contaminated soil and possible creosote groundwater contamination
- 2. Underground Storage Tank (UST);
- 3. Uncharacterized "demolition debris"
- 4. Perchlorate contamination of groundwater from fireworks detonation
- 5. Soil and possible groundwater contamination by pentachlorophenol of unknown origin.

Based on the results of the Phase I ESA, a full Phase II ESA is needed, including sampling activities to identify the types and concentrations of contaminants and the areas of contamination to be cleaned. Tribal leadership needs information from a Phase II Assessment to begin making plans for this property.

## 11.0 Deviations and Deficiencies

There are no deletions or deviations from the ASTM E 1527-05.

This phase I ESA is deficient of the following interviews:

- Mr. Michael Penney
- Ms. Sharon Yepa
- Ms. Carol Holloway
- Mr. Neil DeAtley

## 12.0 Additional Services

## 12.1 Compliance with National Historic Preservation Act (NHPA)

Prior to the initiation of field activities associated with the Targeted Brownfield Assessment the Nez Perce TRP funded a comprehensive archeological assessment and received a confidential report dated December 7, 2010. The following paragraphs excerpted from the report clarify the status of the NHPA compliance:

NHPA "Conclusions and Recommendations"

"The Nez Perce Cultural Resource Program conducted an intensive phase survey across the entire project area as well as shovel testing. Excavation of these shovel test probes (STPs) did not contain any cultural or historic material. Most units were shallow and excavation was limited by the predominance of rocky, compact sediment. The Project area has been highly disturbed by a number of factors associated with the operation and destruction of the Riverside/Richardson sawmill in 1982, as well as secondary uses up to the present time. Some of the large concrete foundations, historic buildings and features are still located in their original positions, while others have been broken down, relocated, and piled up at various locations on TU-45. None of the 20 features are eligible for the National Register of Historic Places under Criterion D. However, four features (17, 18, 19, and 20) likely contain older, intact deposits and should be avoided. These features are potentially eligible for the National Register of Historic Places because these deposits may contain potential features and/or artifacts that may be significant to the Nez Perce Tribe. These areas are located on the north east side of the unit close to the Nez Perce Tribal Teweepuu Community Center (locations redacted). These deposits may contain potential features and/or artifacts that may be significant to the Nez Perce Tribe. The other areas are capped by a thick layer of compacted gravel. Because there are two known sites within a 1mile radius of the project area and the area has a reliable water source, it seems to be a likely setting for additional cultural resources to be found. Feature 20 should be avoided by all construction activities."

"The proposed EPA testing and clean up should have no effect on any known cultural resources. The CRP therefore recommends that it proceed as planned. No further archaeological investigations are recommended. Future development activities at TU-45 should also not adversely affect cultural resources as long as the areas noted above are avoided."

The locations of current monitor wells and trenches have been compared to the (*confidential*) map of the artifact locations and there are no areas of conflict. An OSHA 40 Hr HAZWOPER trained Tribal Archeologist was hired to oversee Phase IIA drilling and excavation activities in 2013. We are planning on inviting the Tribal Archeologist to also participate directly this proposed Phase IIB ESA.

## 13.0 References

Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. ASTM International, Designation: E 1527 – 05.

American Society for Testing and Materials (ASTM) 2000. Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E 1527-00). Philadelphia, PA, USA.

Environmental Data Resources, Inc., Radius Map and Site Assessment Reports.

Federal Emergency Management Agency, National Flood Insurance Program, Flood Insurance Maps.

http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1

Idaho Department of Water Resources, Well Driller's Reports,

http://www.idwr.idaho.gov/WaterManagement/WellInformation/DrillerReports/dr\_default.htm

Idaho Geological Survey, Geological and Surficial Maps, <a href="http://www.idahogeology.org/Products/MapCatalog/">http://www.idahogeology.org/Products/MapCatalog/</a>

Lewis, Reed S, John D. Kauffman, Gary F Davidson, and Russell F Burmester, 2005. Geologic Map of the Orofino East Quadrangle, Clearwater and Lewis Counties, Idaho, Geologic Map 39, Idaho Geologic Survey.

Othberg, Kurt L, Daniel W Weisz, and Roy M Breckenridge, 2002. Surficial Geologic Map of the Orofino East Quadrangle, Clearwater and Lewis Counties, Idaho, Idaho Geologic Survey, Digital Map 4.

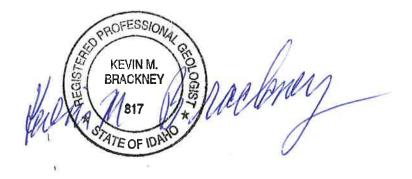
Phase I Environmental Site Assessment, Tribal Unit 45, Richardson's Sawmill, Nez Perce Tribe Water Resources Division, Groundwater Program, March 12, 2010; by Kevin M Brackney.

Riverside/Richardson Saw Mill (TU-45), AARA Funded, Targeted Brownfields Assessment, Orofino, Idaho, December 2011; by Ecology and Environment, Inc.

United States Geological Survey, Topographic Maps.

United States Department of the Interior, Fish and Wildlife Service, National Wetlands Inventory Map

# 14.0 Signature of Environmental Professional



Kevin Brackney, Idaho Registered Professional Geologist, Certificate No. 817

## 15.0 Qualifications of Environmental Professional

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental professional as defined in §312.10 of 40 CPR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of TU-45. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312.

# **Appendixes**

Appendix 1. Research Documentation (aerial photographs, fire insurance maps, topographical maps, etc.)



Figure 6 Aerial photo of TU-45 and Riverside/Richardson Sawmill circa 1973

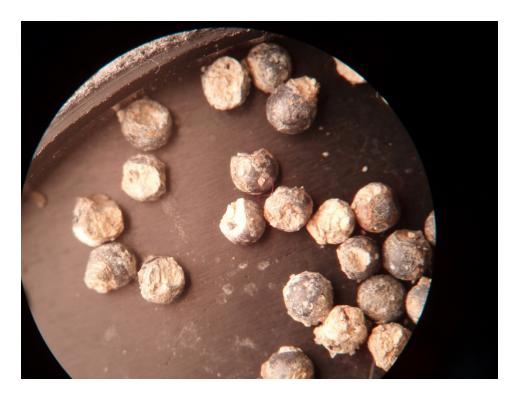


Figure 6. Lead shot collected from riverbank of TU-46 downrange of Orofino Trap House.



Figure 7. Current location of Fisheries office/site of Orofino Gun Club Trap House



Figure 8. Waste materials dumped at log pond by WASCO, Inc. in 1998.



Figure 9. Present day photograph of waste materials dumped at log pond.



Figure 10. Fireworks discarded at TU-45.

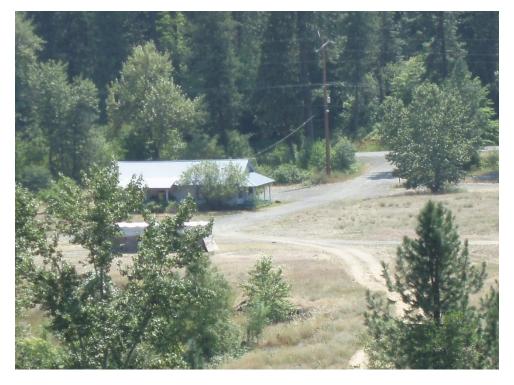


Figure 11. Saw mill office/WhiteEagle gift shop.

Form 238-7 9/82  STATE OF IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.								
1. WELL OWNER  Name Head Start School  Address Deofino, Ila  Owner's Permit No. Mp - Idion wall?	7. WATER LEVEL  Static water level							
2. NATURE OF WORK  3. Polymer of Person o		Ø PL	ımp	DATA Bailer PAir Dother Pumping Level Hours Pumped				
3. PROPOSED USB  School Sich Sich Sich Sich Sich Sich Sich Sich	9. LITHOLOGIC LOG Bore Depth Water							
4. METHOD DRILLED  18 Rotary	Bore Diam.	From		Material Water Yes No Strangf - Isuadores and				
5. WELL CONSTRUCTION  Casing schedule:   Steel   Concrete   Other	A de way	208	84 123 208	wife granite gray little was granite gray, little separate gray, little				
Thickness Diameter From To Get WS feet inches inches inches feet feet inches inches feet feet was casing drive shoe used? Wes Was a packer or seal used? Yes No How perforated? Factory Knife Torch		319 363	275	soft grante gray				
Size of perforation   inches by   inches				Received				
Diameter Slot size Set from feet to feet Gravel packed?				Department of Water Constitutes  Worthern District Units  C1 C C C C C C C C C C C C C C C C C C				
Weld ☐ Cemented between strata ☐ Describe access port	10.	Wo	rk start	ed Spt 29,8) finished 2+7,87				
6. LOCATION OF WELL  Sketch map location must agree with written location.  N  Subdivision Name	11. DRILLERS CERTIFICATION  I/We certify that all minimum well construction standards were complied with at the time the rig was removed.  Firm Name Whatatt Bulling Firm No. 123  Address Laura Llabor Date Day, 7, 87							
County Lot No. Block No. Clen W 2 Lin SE 1/2 NW 1/4 Sec. 17 T. 36 DS, R. 2 EM.  USE ADDITIONAL SHEETS IF NECESSARY - FO		Signed	by (Fi	rm Official) Thelian While hoth and Deerator) William While hoth				

Figure 12. Drinking water well log, TU-45.



Figure 13. Riverside Sawmill water intake pipe in Clearwater River.

# Appendix 2. Standard Environmental Record Sources Memo and Mr. Paul Brusven interview



## **MEMO**

**To:** Files

From: Melissa Smothers, Environmental Specialist, Nez Perce Tribe

**CC:** Kevin Brackney

**Date:** 02/19/10

Re: Phase I ESA - Standard Environmental Record Sources Search for Richardson Mill Site--Tribal Unit 45 and Interview with Paul Brusven

For a Phase I ESA for Richardson Mill Site--Tribal Unit 45, I conducted a Standard Environmental Record Sources search. The following table indicates the records searched, the source of information, date databases were accessed, points of contact, and findings.

Record	Minimum Search Distance (miles)	Findings for TU- 45	Source of Report
Federal NPL Site List	1.0	None	EPA Website http://www.epa.gov/superfund/sites/npl/where.htm
Federal Delisted NPL Site List	0.5	None	EPA Website http://www.epa.gov/superfund/sites/npl/where.htm
Federal CERCLIS List	0.5	None	EPA Website http://www.epa.gov/superfund/sites/cursites

Federal CERCLIS NFRAP Site List	0.5	None	EPA Website http://www.epa.gov/superfund/sites/cursites
Federal RCRA	1.0	None	EPA Website
CORRACTS	1.0	None	http://www.epa.gov/osw/hazard/correctiveaction/in
Facilities List			dex.htm
Federal RCRA non-CORRACTS	0.5	None	IDEQ Website Public Records Request
TDS Facilities List			http://www.deq.state.id.us/public/public_record.cfm #how
Federal RCRA	Property	None	IDEQ Website Public Records Request
Generators List	and adjoining properties only		http://www.deq.state.id.us/public/public_record.cfm #how
Federal	Property	None	EPA Federal Institutional Control / Engineering
Institutional Control/	and adjoining		Control Registries (Chip Love)
Engineering	properties		
Control Registries	only		
Federal ENRS List	Property only	None	National Response Center Query Standard Reports http://www.nrc.uscg.mil/foia.html
State and Tribal Equivalent NPL	1.0	None	IDEQ Website WDI Query http://www.deq.idaho.gov/Application/WDI
State and Tribal	0.5	None	IDEQ Website WDI Query
Equivalent CERCLIS			http://www.deq.idaho.gov/Application/WDI
State and Tribal	0.5	None	IDEQ ID Solid Waste Facility Database (Joe Nagel)
Landfill and/or Solid Waste			
Disposal Site List			
State and Tribal	0.5	None	State - IDEQ Website WDI Query
Leaking Storage Tank List		active,	http://www.deq.idaho.gov/Application/WDI
		Nine Closed	Tribal – EPA website http://www.epa.gov/r10earth/
State and Tribal	Property	None	State - IDEQ Website WDI Query
Registered Storage Tank List	and adjoining		http://www.deq.idaho.gov/Application/WDI  Tribal – EPA website http://www.epa.gov/r10earth/
	properties		Thoat – Li A weosite http://www.epa.gov/110eattil/

	only		
State and Tribal Institutional Control/ Engineering Control Registries	Property and adjoining properties only	None	IDEQ (Joe Nagel)
State and Tribal Voluntary Cleanup Sites	0.5	None	IDEQ VCP Site List and Status (Bruce Wicherski)
State and Tribal Brownfield Sites	0.5	None	State - IDEQ Website WDI Query http://www.deq.idaho.gov/Application/WDI

I am still waiting on report confirmations for the Federal RCRA CORRACTS Facilities List.

I interviewed Paul Brusven, former employee of WRD, on 02/08/2010. He stated that in 1992 or 1993, he went to the Orofino Trap Range, located where the current Fisheries Office stands, to investigate lead contamination for the NPT Executive Committee. He took soil samples downrange from TU-45 river bank at the high water mark. Mr. Brusven stated that he found quite a bite of shot, although he could not remember the exact pounds per area. He wrote a report summarizing his findings, but he had no idea how or where the report might be located now.

## Appendix 3. Site Reconnaissance and Interview with Marcus Oatman



#### **MEMO**

**To:** Files

From: Julie McWhorter, AmeriCorps Intern, Nez Perce Tribe

**CC:** Kevin Brackney

**Date:** 7/14/2009

Re: Richardson Mill Site--Tribal Unit 45

6/23/09 Site visit by Julie McWhorter, AmeriCorps Intern and Lily Kauffaman, Nez Perce Economic Development

## Site photos and notes taken by Julie McWhorter, AmeriCorps Intern:

1. Unknown cement structure #1(N/NE area)

Note: Deer jumped out of thicket on north end

- 2. Protruding pipe in cement structure
- 3-5. Pipes in between 2 structures
- 6. Cement structure #2
- 7. Large pipe looking down
- 8. 4 holes and waterlines
- 9. Wood and tarp near cement structure #2
- 10. Pipe west of cement structure #2
- 11. River from top of hilly shore

Note: Lots of rusted steel and leftover cement

#### Site Notes

The camera lens was stuck in the closed position and the following were notes:

- 1. Heading West, Metal scrap and rusted pieces
- 2. Cement Platforms

- 3. 13 barrels filled with cement, mostly buried
- 4. 2 Large rectangular rusted scrap metal
- 5. Brick/cement pieces
- 6. More big chunks of cement platform
- 7. Wires
- 8. Long metal structure, approx. 30 ft. from West shore
- 9. Empty 1 gal rusted can of RUGlyde (Rubber lubricant)
- 10. Cement campfire ring
- 11. Small house-like brick building
- 12. Protruding pipe
- 13. East cement platform behind fireworks stand
- 14. **South** woodpile pieces

7/13/09 9:32 am Interview with Marcus Oatman, former employee at Richardson Mill

Mr. Oatman worked at the Richardson Mill, where his father was employed, from 1973 until his marriage in 1975 when he wanted work closer to home. Other individuals Mr. Oatman remembered were "Old Man" Richardson and his son, Dale Richardson. Mr. Oatman identified 10 uses for former structures on the mill site on a photo copy of a 1973 map. These included the former:

- 1) Main office, where the White Eagle Crafts building is currently located Location: South section of site
- 2) Gas storage and Pump

Location: Center of site

3) Pull chain or Green chain where wood is stored after it is cut to be put on kiln carts

Location: Stretches from North through Northeast part of site

4) Log Pond, where trees are first stored

Location: Northeast corner of site at Riverside

5) Logs are sawed into boards

Location: North section of site, close to Clearwater River

6) Kiln, where dry lumber is heated further. Sawdust and shavings may have been burned to run the kiln

Location: West

7) Plainer chain, where the lumber is surfaced and stacked

Location: South section of site

8) Storage for keeping the surfaced lumber dry

Location: Stretched from south center to east

9) Diesel storage and pump

Location: East corner of site

10) Drinking fountain (possible well)

Location: Center of site, in between #7 and #3

Mr. Oatman suggested the half moon concrete structures remaining may have been holding structures for 50 gallon gasoline drums. Steam may have been used to power saws, but Mr. Oatman was unsure of details associated with that.

Mr. Oatman mentioned that Paul Brusven remembers cement trucks cleaning out and dumping in the early 90s in the holding pond long after the Mill closed.

© Kiln-dry (unber oring sawdust + showings ) planear chain surface it 6 drinkeing I saw logs there into 2) gas storage - pump 3 Bels chain - green chain (1) septic system?

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## **Appendix 4 Interview with Dale Richardson**



#### **MEMORANDUM**

**To:** Kevin Brackney

From: David Sutherland, Environmental Specialist, Nez Perce Tribe

**Date:** 8/3/2009 (Edited 8/13/09 by Kevin Brackney)

Re: Riverside Mill Site visit with Dale Richardson--Tribal Unit (TU) 45

## **Site History**

Kevin Brackney and David Sutherland met Dale Richardson at the Riverside Mill site 1.3 miles East of Orofino at 9:30 AM on 7/31/09. Dale stated that his father started the mill with several partners in 1943. From 1943 - 1945 the mill made railroad ties with timber from adjoining tribal land. Dale said the railroad ties were never treated at the Riverside Mill. During the period of time when the mill was processing tribal lumber no lease agreement was made. In 1945 the mill started sawing other (non-tribal) lumber. The Tribe requested that Richardson construct a building on-site in lieu of a cash lease payment for later use by the Tribe for the period 1945 through 1950. Richardson constructed a wooden office building that was most recently known as White Eagle Crafts. The first official lease was signed in 1950, with renewed agreements every five years thereafter until the mill ceased operation on May 5, 1980 when the Tribe declined to renew the lease or purchase the sawmill equipment. Dale said that he finished demolition and clean up at the mill site on January 3, 1982, except for the PCB contamination which he finished cleaning up in August of 1982. At the time of closure the mill paid \$1000/month for lease of the property.

#### **PCB Contaminated Soil**

The PCB contaminated soil was partially removed from the dirt floor of the cinder block Transformer Building which is still standing (owned by Washington Water Power (WWP). Inside the concrete block building Dale showed us where a cement ledge approximately 4 ft. wide supported the transformers. Dale said the rest of the floor had been dirt at the time he cleaned up the PCB contaminated soil. The floor as now solid concrete but the edge between the

4 ft ledge and the new concrete is visible. Dale was surprised to find that concrete had been poured inside the rest of the building. The three 40 gallon capacity transformers were apparently tipped over, after the mill closed, by vandals in an effort to remove the copper from them. Dale said he excavated and removed 13 – 55 gallon drums of PCB contaminated soil from inside the building in August of 1982. Dale said he dug until there was no visible oil staining. He also said a tribal member was there to oversee the cleanup and told him it was cleaned up adequately, though Dale didn't remember the tribal member's name. Dale said he believes they sampled before and after he cleaned up the PCB contaminated soil. Brackney and Sutherlands file review found references to initial samples but no samples after cleanup.

In commercially produced aerial photos which Dale brought to the site visit, transformers owned by WWP can be observed inside a fenced area southeast and across the gravel access road from the cinder block building as shown in. These WWP transformers were mounted on a platform between two power poles (see Figure 2). It is unknown if soil contamination is related to these transformers.

#### Creosote

Dale said that the mill primarily produced lumber, but for one and a half years in the late 1960's or early 70's the mill cut and 4"x6"x2.5" blocks, treated them with creosote, and sold them to the Trent aluminum smelter in Spokane for use as replaceable treated wooden pavers inside the smelter complex. The Richardson creosote treatment building was located on the middle South side of the property, and south of the office building. While there is no visible creosote on the present land surface, the described treatment process and reported dumping of the creosote dip tank suggests that this area should be thoroughly investigated.

The creosote treatment operation consisted of dip tank, three -- 2000 gallon creosote storage tanks, and an air pressure tank, which pumped the creosote from the storage tanks to the 3 ft. x 20 ft dip vat located on the second floor, where the blocks were treated. A conveyer operated above the vat to pull the blocks across the surface of the creosote where they would pile up to be removed by another conveyor for drying in racks above the vat. Dale said the creosote operation stayed in place after operation until 1982, when Richardson removed it. When asked about dripping of creosote Dale said that the creosote had to be heated to flow and that initially the wooden blocks dripped, but as they cooled the creosote was absorbed into the wood. It's not clear if the ground was contaminated by the block dripping creosote and if the contents of the vat were truly dumped as stated in other documents. When we told Dale that the files indicated the creosote was dumped on the ground during demolition of the site, he said, "why would anyone do that when they could sell it, that stuff was expensive."

#### **Gasoline UST**

Brackney and Sutherland asked Dale about the gasoline tank that was reported by Marcus Oatman, a former employee, when he was interviewed. Dale said that it was a 1000 gallon Underground Storage Tank which was located on the Southeast corner of the access road intersection. Dale thought he removed the tank but was unsure.

#### Other notes

During the course of the site visit Dale mentioned several facts about the site that are not directly related to contamination. Dale mentioned that the pond was lined with clay by his father because water percolated through the gravel bottom quickly. Dale also said the ramp that exists opposite the cinder block building was not there when the mill was closed. He also said that an intake pipe protrudes into the river to supply water for the pond, fire hydrant system, and steam generation. Dale said the steam for the mill was generated by burning wood. He also said the steel pipes for the fire hydrant system are still intact underground at the site and contain a lead lining or lead joints.

Brackney and Sutherland followed Dale to his personal property in Riverside/Orofino and photographed the three creosote tanks and creosote pressure tanks included as Figures 4 and 5. We completed the Dale Richardson interview at approximately 12:00.



Figure 1, Transformer sites; cinder block transformer building and fenced power poles in background.



Figure 2; Concrete support saddles for creosote air-lift pressure tank, Richardson Saw Mill site, TU 45.



Figure 3, Creosote tanks, located offsite on Dale Richardson's property, Orofino-Riverside, Idaho.



Figure 4, Creosote pressure tank, located offsite on Dale Richardson's property, Orofino-Riverside.

## **Appendix 5 Five Additional Interviews**



#### **MEMO**

**To:** Files

From: Melissa Smothers, Environmental Specialist, Nez Perce Tribe

**CC:** Kevin Brackney

**Date:** 03/12/10

#### Introduction

I interviewed Mr. Casey McCormack on 03/04/10. I interviewed Mr. Sherman Sprague, Mr. Leroy Seth, and Mrs. Jackie Taylor on 03/08/10. I interviewed Mr. Melvin Joye on 03/10/10.

#### Mr. McCormack Interview

On 03/04/10 I interviewed Mr. McCormack in person. He stated that he had seen clay pigeons and shotgun shells surrounding the Fisheries Office when he worked there in the 1990's. He also stated that a fireworks stand operated at TU-45 as of 2009. He also informed me that a storage building near the fisheries office was probably built before 1978 and could have been painted with lead-based paint.

#### Mr. Sprague Interview

On 03/08/10 I interviewed Mr. Sprague via the telephone. He stated that the Fisheries Office was built over the footprint of the Orofino Gun Club trap house. I asked him if the thought that the clay pigeons and shells found around the Fisheries Office indicated that the soil surrounding

the Fisheries Office might be lead contaminated. He stated that in his experiences shooting trap that the clay pigeons do not travel very far and the shotgun shells fall where the shooter is standing. He believed that the majority of the lead shot would have been deposited in the riverbed and the opposite bank.

#### Mr. Seth Interview

On 03/08/10 I interviewed Mr. Seth via the telephone. He stated he was the Acting Sanitarian, Interim Superintendent of IHS, and Community Health Educator at various times in his work career. He stated that he had knowledge of the 1986 report of contamination of PCB at the transformer building. He stated that he and a man that worked for the tribe went to TU-45 in 1986. He stated that he believed the contamination was from the original spill in 1982, because the transformers were no longer located in the transformer building. He remembered checking the rocks and soil for staining. He did not believe any follow up action was required by his department.

## Mrs. Taylor Interview

On 03/08/10 I interviewed Mrs. Taylor, wife of Emmitt Taylor, Sr., (operator of Double Shot fireworks stand) via telephone. She stated that her husband's fireworks stand was located by the highway near the Fisheries Office driveway. She stated that the fireworks stand near the WhiteEagle Gift Shop was operated separately by Mr. Melvin Joye and two brothers from Orofino, ID. She could not remember the names of the two brothers, but stated that Mr. Joye would remember. She stated that many people had operated the fireworks stand by the WhiteEagle Gift Shop.

#### Mr. Joye Interview

On 03/10/10 I interviewed Mr. Joye via telephone. He stated that he operated the fireworks stand located near the WhiteEagle Gift Shop for five to six years approximately from 1987 to 1992. He was not definite about the dates. He stated that the two brothers that also operated the stand were Rob and Scott Miller. He stated that they still use it.

He stated that the concrete building (transformer building) was an old dynamite shack. He stated Richardson Sawmill stored dynamite in the building to use to loosen up the logs in the mill pond when it froze over in the winter. He stated this was a common practice by mills.

He also stated that fifty to one hundred years ago the Nez Perce people backed camas in pits at TU-45 (as you enter the mill site turn left and one pit is located down by the river, if you turn right at the upper mill site you will find the second pit). He said the Nez Perce used the site as a campsite prior the mill being built. He stated that historically the mill site was a riverbed and an old campsite for the Nez Perce. He stated that a community gardens was located at the mill site until the 1960's. He also stated that there are six homesteads around the mill site.

He stated that the mill site was not a winter camp for the Nez Perce. He said Ahsahka was the winter camp site and it was a permanent camp site. He stated that all of the bands congregated at Ahsahka (above and below Barney's bands, Gilbert Grade band, Sunny side band, etc.). He stated that the Nez Perce stayed at Ahsahka for protection against the Tuelka (means enemy to be fought, also called the Snake Indians, and known today as the Shoshone Indians). He stated that the Nez Perce were always warring with the Shoshone Indians.

He stated that prior to Mr. Richardson putting in the mill in 1925, the Nez Perce and white people from Orofino played ball there. He stated that one and a half miles upstream of the mill site and on the opposite side of the river a limestone quarry operated. He stated that it was called the Old China Mine and that many Nez Perce worked there. He said that the Nez Perce would cross the river and wash off the dirt from the quarry. Then they would play ball against the whites. He said the Nez Perce would speak in the Nez Perce language so the whites could not understand them (as in code, so the whites would not know the game strategy of the Nez Perce).

He stated that the mill had to renegotiate the lease every year. He said the mill closed because the tribe originally only had stipulations regarding how many Nez Perce tribal members Mr. Richardson had to employee, but as the mill began to make more money the Nez Perce Tribe wanted to increase his lease fee. He stated that Mr. Richardson refused to pay the higher lease fee, therefore the mill closed.

He stated that the Orofino Gun Club deposited shells, copper, lead, and pigeons in the river. He stated that the noise of the shotguns going off harassed the wildlife that came to the five homesteads on TU-46 to eat cherries and apples.

He stated that the waste material in the log ponds was probably pipes and beams. He remembered seeing large beams (12X12, and 8X12 inch beams) in the pond. He stated that the public pulled the beams out of the pond to reuse them. He mentioned that the beams could have been contaminated.

He also stated that Clearwater Concrete dumped concrete at TU-45. He said they operated at the mill site for several years. I stated that I had not found a lease document for Clearwater Concrete. He stated that maybe the company was listed under the limestone quarry lease that was located at Mission Creek. He stated that Clearwater Concrete now operates out of Ahsahka. He stated that many people operated at the mill site, but might not have been legally leasing the land.

## Appendix 6 Request to use LUST Trust Funds for UST Assessment



April 7, 2014

Rob Rau EPA 1200 Sixth Ave, Suite 900 OCE-082 Seattle, WA 98101

Re: Tribal Unit (TU) - 45 UST Investigation, Orofino, Idaho

On March 18, 2014, I met Dale Richardson, Dale Cox (Attorney), and Brent Richardson (son) at TU-45 to review the location of the alleged UST identified by Geophysical Survey, LLC report dated 12/31/2013 (see attached Figure 2, Geophysical Survey LLC).

The possible presence of a circa 1000 gallon UST was previously disclosed by Dale Richardson on 8/3/2009 as documented in a revised Phase I ESA conducted by the Nez Perce Tribe dated 2/2/2012 (see attached figure, also labeled Figure 2 from the Phase I ESA). Judy Goodson then superimposed the locations of the "Gas House" as disclosed by Dale Richardson and the Geophysical Survey LLC--identified UST onto a 1973 aerial photo of the operating sawmill supplied by Dale Richardson (see Figure 3).

As shown in Figure 3 the two locations a separated by a significant distance. Dale stated that the found UST would have been located inside of a sawmill building and not at the location of the gas house. While the Richardson's still could not recall what happened to the UST located at the Gas House (it may have been given away during mill closure), the geophysical survey failed to document the presence of a UST in the vicinity of the Gas House. Thus, it appears that we have a probable UST installed in a different location by a subsequent operator after the mill shut down and demolition period 1980-1983.

Subsequent BIA lease records of operators with the potential to utilize a UST dated after the Richardson Mill was shut down include:

Sverdsten Logging Co., 11/01/1983 – 1/31/1984, Sorting Yard Seubert Excavators, Inc. 10/22/1987 – 12/31/1991 asphalt batch plant

The Phase I ESA indicates that interviews with Sverdsten Logging and Seubert Excavators were pending. We well again attempt to interview both entities to complete some of the unresolved deficiencies of the Phase I ESA and possibly establish the UST patrimony.

Sincerely, Kevin Brackney, M.S., P.G.

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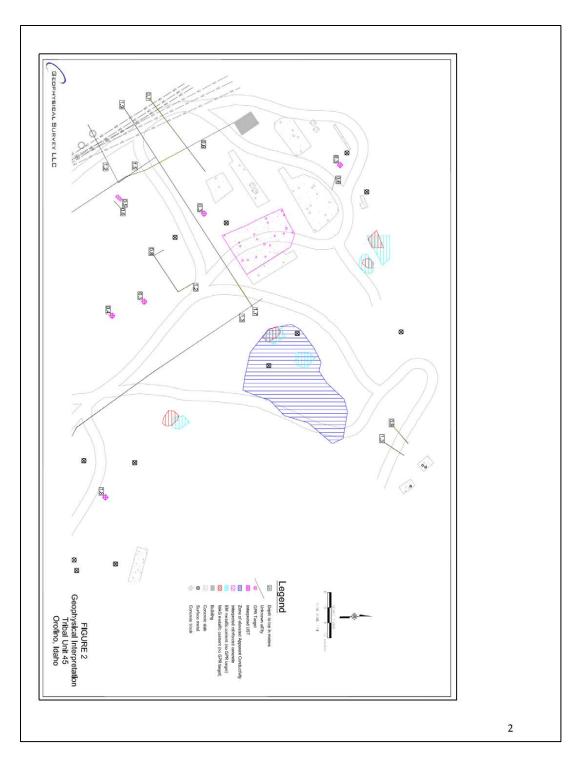


Figure 14. Geophysical map showing location of UST



Figure 15. 1973 aerial photo showing location of fuel tanks used by sawmill and location of UST identified by geophysics.

#### Appendix 7 Interview with Terry Sverdsten May 22, 2014



#### **MEMO**

Date: May 22, 2014
To: Kevin Brackney
From: Judy Goodson

Re: TU45 Lessee Sverdsten Logging Inc.

On May 22, 2014 at 10:30 AM I contacted: Terry L. Sverdsten former president of Sverdsten Logging Inc. at 208-682-2308. A physical address for Mr. Sverdsten was found on whitepages.com as 27769 E. Schoolhouse Loop, Cataldo ID 83810-8307

Mr. Sverdsten is an older man in his 80's. I told him who I was, who I work for and why I was calling. I told him that Water Resources was updating a Phase 1 ESA for TU45 east of Orofino and that I had found that an interview had not been made when the original Phase 1 had been conducted.

I asked what he had used the leased ground for. Mr. Sverdsten said it was for a log landing and sorting yard.

I asked what equipment he had on site. Mr. Sverdsten said he had work trucks, log trucks and a crane.

I ask what was used to fuel the equipment. Mr. Sverdsten said he used portable fuel tanks (slip tanks) in his work trucks and hauled fuel from Orofino.

Mr. Sverdsten asked if there were implications of environmental issues surround his use of the ground. I told him no, that over the decades there had been a lot of different uses of the site and his company was one of many that took advantage of a flat site off the highway, along the river and close to Orofino.

I asked if he had built any structures. Mr. Sverdsten said no, that he didn't even have camp trailers for the crew to stay in, but that the old mill office was still standing and was vacant. I thanked Mr. Sverdsten for his time and concluded our call.

## Appendix 8 Interview with Thomas C. Reiner May 22, 2014



#### **MEMO**

Date: May 22, 2014 To: Kevin Brackney From: Judy Goodson

Re: TU45 Lessee\_ Seubert Excavators Inc.

On May 22, 2014 at 11:30 AM I contacted Thomas C. Reiner at Seubert Excavators Inc. located at 604 King St, Cottonwood ID 83522 (208) 962-3314.

I called Seubert Excavators and after introducing myself to whom I assume to be the secretary, I was transferred to Mr. Thomas Reiner. I told Mr. Reiner that I was in the process of updating our Phase 1 ESA on TU45, which his company was listed as a leasee and I had noticed that he had not been interviewed. The opening conversation was reviewing where TU45 is located and the years of lease.

I asked Mr. Reiner what his primary use of the land was for. Mr. Reiner said that his company ran a ready-mix concrete batch plant and made pre-formed Jersey barrier.

I asked about the scattered large pieces of concrete about the site, if he knew of there intended uses. Mr. Reiner said he was assuming it might be pre-formed concrete rings for manholes or septic tanks, and that he is surprised that they were left behind; he thought they had left the site clean.

I asked about the loading ramp; if his company had built it and what was used for. Mr. Reiner said they didn't need a loading ramp as they had a front end loader.

I asked Mr. Reiner about what other equipment he used on the site. Mr. Reiner said that there were concrete trucks, the batch plant and an end dump.

I asked if he crushed rock on site. Mr. Reiner said that his company had made plans to start crushing rock from the site but that even with Idaho Dept of Lands blessing; he referred to the Tribe's 1863(?) treaty where the Tribe has the rights from the high water to the river bed and felt it would not be a good idea. And that also the Tribe canceled the lease. He further stated that material was hauled in for the batch plant.

I asked Mr. Reiner what was the source of fuel for his equipment. Mr. Reiner said he doesn't remember clearly but that he believes that it was a portable fuel tank/trailer and later a 500 gallon Tank on a stand (he offered the quantity on his own with no prompting). I asked Mr. Reiner if he was talking about a UST or an AST and Mr. Reiner said it was not a buried tank (again with no prompting).

I closed the conversation with Mr. Reiner by giving him my name and direct number. I also gave him my supervisors name and direct number. Mr. Reiner said that he had not been out to the site since the closing of the batch plant and I suggested that maybe he should visit.

I called back at 14:15 to ask Mr. Reiner about the batch plants power source. Mr. Reiner said that they have their own power transformers and do a "temporary hook-up" with the power company's blessing to step down the line voltage. I told Mr. Reiner that I was just wondering if they had used a 27' trailer/ generator like the crushers use and Mr. Reiner again said no, that there was no need when over head line voltage is available. I again thanked him for his time.

## Appendix 9 WASCO Revocable Permit, July 1, 1997

7-8-97



#### REVOCABLE PERMIT

Date July 1, 1997

Permit # 97-545

Tribal Unit: TU44

NEZ PERCE TRIBE P.O. Box 368 Lapwai, Idaho 83540 GRANTOR

WASCO, Inc. P.O. Box 150 Orofino, Idaho 83544 GRANTEE

See attached plat showing definite location over and across a portion of SE  $\!\!\!\!/\,$  NW  $\!\!\!\!/\,$  of Section 17, Township 36 North, Range 2 East, Boise Meridian, Clearwater County, Idaho.

Permission is hereby granted to WASCO, Inc. place and compact clean fill on the subject property in accordance with the conditions listed below.

The permission herein granted is subject to the following terms and conditions:

- The Grantee agrees to pay a \$75.00 administrative fee to the Nez Perce Tribe prior to the signing of this permit.
- The permit shall begin on the date of approval by the Grantor and the Grantees, and will remain in force until September 1, 1997.
- The Grantee shall fully repair all damages to the existing roads caused by the Grantee in the exercise of the privileges granted herein. Such repairs may include reshaping and outsloping of the surface, cleaning and repairing culverts, and construction of water bars.
- 4. The Grantee agrees to apply a grass seed mixture to all areas where disturbance of the soil has resulted from the exercise of this permit. Grass seed shall be applied at a uniform rate of 20 pounds per acre, and shall be applied immediately following final road maintenance. This grass seed mixture must be approved by the Nez Perce Tribal Land Services Program prior to application.
- The Grantee will reimburse the Grantor on a just and reasonable basis for any other damages to the land, or existing improvements thereon, which may be caused by the Grantee or it's employees.

Page 1 of 2

- No trees are to be cut in connection with fill and compacting operation while on the 6. property covered by this agreement.
- 7. The Grantee and/or it's Contractor will do everything reasonable within their power to prevent fires on the above described land.
- This Agreement shall in no way be construed to mean that said property will be open to 8. the public at any time, or that the Agreement gives the Grantees and/or their Contractor exclusive use of the property.
- The Grantor reserves the right to cross and recross the land covered by this Agreement 9. and any road thereon at any point for any and all purposes.
- It is further understood and agreed that this instrument is not an easement and is not to be 10. taken or construed as granting and easement interest or leasehold right in or to the land described herein, but is merely a use permit.
- This Agreement is non-transferable, and can be modified by mutual consent of the 11. Grantor and the Grantee.
- Prior to placement of granular material existing piles of loose material (containing rock 12. and soils) need to be leveled and rolled with construction equipment.
- Concrete and asphalt "chunks" need to be reduced to a maximum size of 2 feet before 13. being incorporated in the embankment.
- Tree limbs and other debris cannot be incorporated into the embankment. 14.
- Each lift to be rolled and compacted by routing hauling equipment over the entire area. 15.
- Large boulders (if encountered) are to be placed or dozed to the outside of the 16. embankment.

WASCO, Inc.

Orofino, Idaho

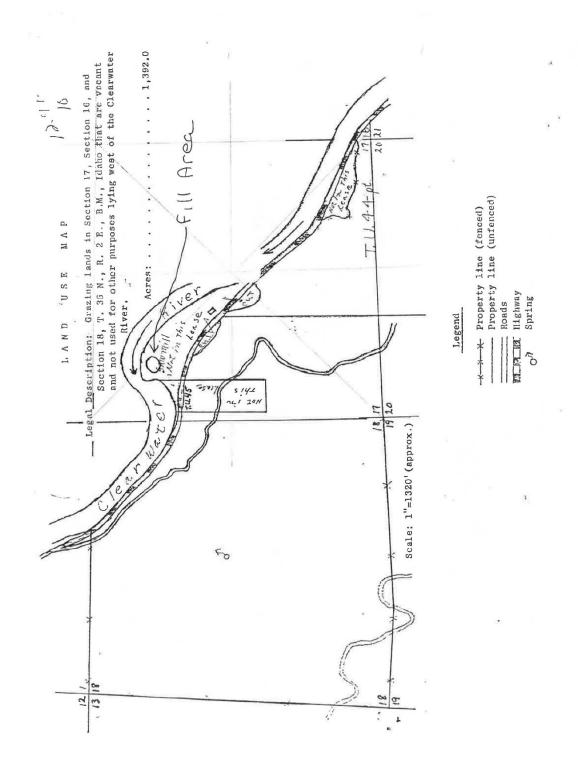
Samuel M. Lenney

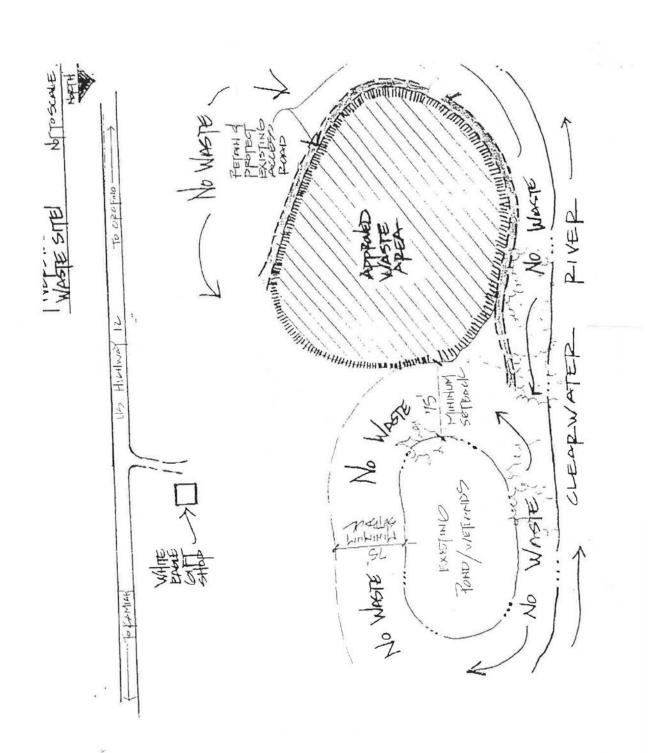
Samuel N. Penney, Chairman

Nez Perce Tribal Executive Committee

7-1-97 (Date)

Page 2 of 2





### Appendix 10 Qualifications for Kevin Brackney, Environmental Professional

# Kevin M. Brackney, P.G., CGWP

838 Lynn St.
Moscow, Idaho 83843
(208) 882-2398
email: kevinb@nezperce.org

#### Education

M.S. Hydrology, University of Idaho, 1992 B.S. Geology, Fort Lewis College, Durango, Colorado, 1978 OSHA Hazardous Waste Safety Training course (40 hour) and annual refreshers, 1993–2013

### **Professional Registration**

Idaho Registered Professional Geologist, Certificate No. 817 Certified Ground Water Professional, AGWSE, Certificate No. 120675

### **Professional Experience**

Hydrogeologist/Water Planner, Nez Perce Tribe, Lapwai, Idaho, 2001-2008.

- Awarded three, 3-year, US EPA grants (FY 2002 FY2011) totaling \$1,168,500 to conduct Underground Storage Tank inspection/leak prevention program at the Nez Perce Tribe. Received Underground Storage Tank Inspector Certification by Inter Tribal Council of Arizona. Assisted EPA in UST inspections and conducted Phase II site investigations for leaking underground storage tanks.
- Awarded a 3-year US EPA LUST Assessment and Cleanup grant (FY2009 -- FY2011) to identify, assess, and cleanup LUST contaminated sites.
- Awarded four, 1-year, US EPA CERCLA (128a) Tribal Assistance Grants (FY2005 FY 2009 totaling \$883,600 to develop capacity to identify and inventory Brownfield sites, develop oversight and enforcement authorities including a comprehensive set of draft environmental codes, identify meaningful ways for public participation is formulating Brownfield cleanup plans, develop mechanisms for approving cleanup plans and verifying that cleanups are complete, and developing a public record of Brownfield accomplishments and future cleanup plans.
- Awarded 1-yr, \$48,000 US EPA Source Water Assessment Project grant to conduct geologic mapping, geochemical sampling, and hydrologic testing of groundwater in the Lapwai Valley to assess the groundwater surface water interactions and identify groundwater recharge zones.
- Assisted the Tribal Utility Program with water well characterization and hydraulic pumping tests, logging well cuttings, and assisting Tribal members with private water well development and construction.

**Research Support Scientist III**, University of Idaho, Environmental Biotechnology Institute, Moscow. Idaho, 1991–2001.

Phosphate Removal from Wastewater Effluents Using Zero-Valent Iron

• Designed and constructed bench scale and pilot plant reactors to precipitate phosphorus in the presence of corroding iron; US EPA aquaculture initiative research grant.

Selenium Remediation: JR Simplot's Smoky Canyon Mine, Afton, Wyoming

- Designed and constructed a large research lysimeter field utilizing pan and suction lysimeters. Experiments with zero-valent iron and organic waste products were conducted within the vadose zone to reduce soluble selenium species to solid phases.
- Conducted research on a selenium contaminated creek flowing under a mine waste dump. Attempted to convert an aerobic french-drain/aquifer to an anaerobic reactor to precipitate selenium.

Herbicide Remediation: UI Plant Science Farm, Moscow, Idaho

- Conducted *in situ* anaerobic bioremediation research on nitroaromatic pesticide groundwater plume (MIT/LITCO grant); coordinating research efforts between hydrogeologists, microbiologists, UI, and Idaho Department of Environmental Quality.
- Conducted Phase II Environmental Site Investigation/hydrogeologic characterization with multiple groundwater contaminants in a fluvial depositional environment. Wrote reports of investigation to UI and IDEQ.

Petroleum Landfarm: Moscow, Idaho

- Developed design for bioremediation of 18,000 cubic yards of petroleum-contaminated soil. Reviewed literature and regulatory requirements; performed contaminant characterization.
- Wrote storm water pollution prevention plan and initiated systematic surface and groundwater sampling program designed to monitor landfarm impacts to the environment.
- Researched and implemented applicable landfarm management strategies, utilizing
  irrigation, nutrient amendments, and tillage to control bioremediation. Measured soil
  oxygen via soil vapor monitoring, and soil moisture via soil tensiometers. Developed
  suction lysimeter network to measure vadose zone leachate concentrations.

Nitrate and Ammonia Groundwater/Surface Water Interaction: Moscow, Idaho

• Established connection between fertilizer contaminated groundwater and surface water bisecting the groundwater contaminant plume utilizing geochemical sampling and hydrogeologic characterization.

Project Manager/Mine Geologist. Crown Resources Corp., Republic, Washington. 1983-1990

Managed mineral exploration and mining projects with annual budgets up to \$700,000.
 Surface and underground geologic mapping; soil, rockchip, stream sediment, and water sampling; designing and implementing directional diamond drilling, reverse circulation, and air and mud rotary drilling programs; drawing and interpreting geologic crosssections, structure contour, and isopac maps; surface and mine surveying, calculating ore reserves, measuring mine contacts. Conducted mineral title examinations and negotiated mine leases to acquire over 7000 acres.

**Exploration Geologist.** Tenneco Minerals Corp., Denver, Colorado, Noranda Minerals, Lakewood Colorado, and Standard Metals Corp., Silverton, Colorado 1977-1982.

- Conducted precious and base metal mineral exploration in diverse geologic environments in 9 states.
- Surface and underground geologic mapping, sampling, and diamond drill core logging.

### **Professional Affiliations**

Association of Ground Water Scientists and Engineers, NGWA

Geological Society of America

### **Publications and Significant Reports**

- Brackney, Kevin M and Ryan Sudbury, 2008. Nez Perce Tribe Environmental Code: Enforcement in Indian County. Presented at National Tribal Conference on Environmental Management, Billings, MT.
- Brackney, Kevin M., 2006. Source water assessment of the Lapwai Valley, Lewiston Sole Source Aquifer, Nez Perce Tribe, Idaho, 2006 Non-Point Water Quality Monitoring Conference, Boise, ID.
- Brackney, Kevin M. 2004. Isotopic Age Dating of Municipal Water Wells in the Lewiston Basin, Idaho: implications for Source Water Assessments and Well Head Protection. "Connections" Idaho's Ground Water Technical Workshop, Boise, Idaho.
- Boguslawski, Nathan D., Jerome W. Fox, Laura R. Moyer, Kevin M. Brackney, and Keegan L. Schmidt, 2003. Remarkable stratigraphic complexity in a Columbia River Basalt aquifer: an example from the Clearwater Canyon, Idaho. Abstract submitted to Geological Society of America annual meeting, Nov. 2-5, 2003.
- Brackney, Kevin M., Ronald L. Crawford, Roger A. Korus, Gregory Moller, 2000. Moving bed research on the contemporaneous precipitation of phosphorus with corroding zero valent iron. EPA Idaho Water Quality Initiative, unpub. annual report.
- Brackney, Kevin M. and Ronald L. Crawford, Ph.D., 1998. Push-pull testing for in situ anaerobic bioremediation of nitroaromatic contaminants in groundwater. *In* Association of Ground Water Scientists and Engineers of NGWA, 1998 Technical Education Session, December 14-16,1998, Las Vegas, Nevada.
- Brackney, Kevin M., Joe Namlick, Dale Ralston, Ron Crawford, 1998. Ammonia and Nitrate Contributions to Paradise Creek from Stormwater and Groundwater, Moscow, Idaho. *In* Eighth Annual Nonpoint Source Water Quality Monitoring Results Workshop. January 6-8, 1998, Boise State University, Boise, Idaho.
- Brackney, K. M., R. L. Crawford, 1997. In situ anaerobic bioremediation of herbicide-contaminated groundwater. *In* Connections '97: Ground Water in the Rocky Mountain Region. Ground Water Technical Workshop. September 24-25, 1997, Boise, Idaho.

- Brackney, Kevin M., and R. L. Crawford. 1997. Ex situ biological petroleum remediation: landfarm case history. *In* 1997 ACS Division of Fuel Chemistry Symposium on Degradative Processes of Fuels in the Environment. Las Vegas, September 7-11, 1997.
- Brackney, K. M 1997. In situ anaerobic bioremediation of dinoseb-contaminated groundwater. *In* Inland Northwest Water Resources Conference, April 28-29, 1997, Spokane Convention Center, Spokane, Washington.
- Brackney, Kevin and David Duncan, 1996. Site Characterization of the University of Idaho Plant Science Farm. In Annual Report FY 1996 INEL University Research Consortium. In Situ Biological Destruction of Nitroaromatic Contaminants in Groundwater. Ronald L. Crawford, Principal Investigator.
- Brackney, Kevin M. and Terry Hammill, 1996. Reduction of Hydraulic Conductivity from Biofouling: Column Tests. *In* Annual Report FY 1996 INEL University Research Consortium. In Situ Biological Destruction of Nitroaromatic Contaminants in Groundwater. Ronald L. Crawford, Principal Investigator.
- Brackney, Kevin, and Stephen A. Wright, 1995. Groundwater Quality Assessment Report, Sweet Avenue Site, Zones 5, 7, 8, 10. Idaho Department of Health and Welfare, Division of Environmental Quality, Lewiston, Idaho.
- Brackney, Kevin M., 1995. Ex Situ and In Situ Biological Petroleum Remediation, Hydrogeology, Air Sparging, and Landfarming, Sweet Avenue Project, Moscow, Idaho: A Case History. *In* Connections: Ground Water in Idaho. 1995 Ground Water Technical Workshop, March 9-10, 1995. Boise, Idaho.
- Brackney, K. M. 1994. Bioventing feasibility study of low-permeability soils for remediation of petroleum contamination. *In* Hydrology, Waste Disposal, Science and Politics, Proceedings of the 30th Symposium, Engineering Geology and Geotechnical Engineering.
- Ralston, Dale, Kevin Brackney, John Kauffman, 1992. Site Assessment Report, Plant Science Farm, Underground Rinsate Storage Tank Site, University of Idaho, Moscow, Idaho. Idaho Water Resources Research Institute, University of Idaho, Moscow, Idaho.
- Ralston, Dale, John Kauffman, Kevin Brackney, 1991. Site Assessment Report, West Farms Underground Storage Tank (UST) Site. University of Idaho, Moscow, Idaho. Idaho Water Resources Research Institute, Moscow, Idaho.

# **Appendix 11 Qualifications for David Sutherland**

### **Experience**

### **Nez Perce Tribe, Water Resources Division**

2005 to 2007

Environmental Specialist I, Multi-media environmental inspector. Hazardous Response Team Supervisor.

- Developed listing of sites for Phase I and II ESAs via Brownfield and LUST Trust Fund Grants
- Assisted in Oversight of cleanup activities.
- Fielded and investigated environmental complaints
- Conducted sampling and environmental field data acquisition using handheld computers, environmental software and GIS/GPS equipment.
- Completed EPA UST inspector credential requirements
- Completed RCRA, ASTM Phase I, II and SPCC/FRP courses
- Conducted UST inspections and compliance assistance visits on the Nez Perce Tribe Reservation.
- Developed and supervised the Hazardous Environmental Response Team.
- Gave presentations on the development of the Environmental Response Team

### **Education and Certifications**

- Bachelor of Science, Crop and Soil Science, Oregon State University, 1990 with honors
- Inter Tribal Council of Arizona, Underground Storage Tank Inspector Cert. #032

## **Appendix 12 Qualifications for Melissa Smothers**

**Education** 

Bachelor of Science in Biology , HSU Graduated
Major: Biological Sciences May 2005

Minor: Botany

**Employment** 

Environmental Specialist, Nez Perce Tribe (NPT), Lapwai, ID December 2009 to

Ensured compliance with Federal regulations regarding underground storage present

tanks on the Nez Perce Reservation

**Certifications and Trainings** 

Basic Inspector Training CST 109 February 2010

U.S. EPA National Enforcement Training Institute

North American Environmental Field Conference & Exposition, January 2010

The Nielsen Environmental Field School, Inc.

Standard CPR and First Aid, NPT January 2010

Basic Underground Storage Tank Inspector Compliance Training, September 2009

U. S. EPA UST-LUST Virtual Classroom

### **Appendix 13 Qualifications for Judy Goodson**

Judy Goodson Water Resources, P.O. Box 365, Lapwai, ID 83540 Tel: (208) 843-7368, ext. 3888 Fax: (208) 843-7371 judyg@nezperce.org

#### Education

Bachelor of Applied Science, Lewis-Clark State College, Lewiston ID

Major: Engineering Technology: CivilGraduatedMinor: Geographic Information SystemMay 2008

Associate of Applied Science, Lassen College, Susanville CA

Major: Steam Production & Operations Technology

May 1995

Minor: Steam Plant & Field Pipe Welding

Certificate of Completion, American Institute of Land Surveying, Phoenix AZ

Major: Land Surveying

May 1986

Certificate of Completion, Heald Business College, Concord CA

Major: Accounting

May 1984

Santa Rosa Jr. College, Santa Rosa CA

Major: Forestry

Employment

Attended 3 Semesters
Fall 1981 to Fall 1982

GIS Specialist; UST Compliance, Site Investigation Nez Perce Tribe, Lapwai, ID

Develop GIS databases. Conduct and accomplish a Brownfield and Inventory of Regulated Properties on the Nez Perce Reservation; Produce, develop and administer a GIS databases to generate cartography with GIS and AutoCAD software of Brownfield, Inventory of Regulated Properties, Historic Spills and HazMat Responses; Perform Environmental Site Assessments, site investigations and title searches. Draft Plan and Profile drawings for proposed site remediation. Write technical reports on Reservation Brownfield's, Site Investigations and Title Searches. Communicate with private and other government agencies on site-specific remediation plans. Participate in hazardous response trainings and GIS continuing education.

Land Surveyor & Engineering Tech/Draftsman Taylor Engineering, Pullman WA

Draft subdivision plats, site-plans, boundary line adjustments and records 'of surveys, ALTA and topographic surveys'. Perform as field lead, party chief and office survey technician in project research, boundary work, Cadastral surveys, GLO retracement, construction staking and ALTA surveys. Prepare deeds for recording. Create coordinate systems, road alignments and staking points for field crews.

March 2005 to March 2009

April 2010

to present

Director of Maintenance, Juniper Meadows Lewiston ID
Perform fire, life safety and operating systems training, drills and evacuations to all staff. Keep MSDS manuals up to date. Evaluate and find solutions to routine and emergency maintenance needs. Correct facility construction flaws. Ensure community is mechanically sound, safe and well maintained by performing basic carpentry, grounds care, painting, electrical, plumbing, locksmithing, carpet care and preventive maintenance.

January 2000 to June 2002

#### Licenses

Licensed Surveyor in Training No. 1060

Certifications and Trainings

9th National Training Conference on PRP Search Enhancement
U.S. EPA, Denver CO

Basic Potentially Responsible Party (PRP) Search Training
U.S. EPA, Denver CO

40 Hour HAZWOPER Training OSHA 29 CFR 1310.120Safety and Health Services

April 2010