



## **PERIODIC REVIEW**

**Hoko Logging Camp  
Facility Site ID#: 38613568**

**Hoko Ozette Road  
Sekiu, Washington 98326**

**Southwest Regional Office**

**TOXICS CLEANUP PROGRAM**

**July 2011**

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## 1.0 INTRODUCTION

This document is a review by the Washington State Department of Ecology (Ecology) of post-cleanup site conditions and monitoring data to ensure that human health and the environment are being protected at the Hoko Logging Camp site (Site). Cleanup at this Site was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC).

Cleanup activities at this Site were completed under the Voluntary Cleanup Program. The cleanup actions resulted in concentrations of petroleum hydrocarbons remaining at the Site in soil that exceed MTCA Method A cleanup levels. The MTCA Method A cleanup levels for soil are established under WAC 173-340-740(2). WAC 173-340-420 (2) requires that Ecology conduct a periodic review of a site every five years under the following conditions:

- (a) Whenever the department conducts a cleanup action;
- (b) Whenever the department approves a cleanup action under an order, agreed order or consent decree;
- (c) Or, as resources permit, whenever the department issues a no further action opinion
- (d) And one of the following conditions exists:
  - 1. Institutional controls or financial assurance are required as part of the cleanup;
  - 2. Where the cleanup level is based on a practical quantitation limit;
  - 3. Where, in the department's judgment, modifications to the default equations or assumptions using site-specific information would significantly increase the concentration of hazardous substances remaining at the site after cleanup or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to assure long-term protection of human health and the environment.

When evaluating whether human health and the environment are being protected, the factors the department shall consider include [WAC 173-340-420(4)]:

- (a) The effectiveness of ongoing or completed cleanup actions, including the effectiveness of engineered controls and institutional controls in limiting exposure to hazardous substances remaining at the site;
- (b) New scientific information for individual hazardous substances of mixtures present at the site;
- (c) New applicable state and federal laws for hazardous substances present at the Site;
- (d) Current and projected site use;
- (e) Availability and practicability of higher preference technologies; and
- (f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

The department shall publish a notice of all periodic reviews in the site register and provide an opportunity for public comment.

## **2.0 SUMMARY OF SITE CONDITIONS**

### **2.1 Site History**

The Hoko Logging Camp site is located approximately 15 miles south of Sekiu, Washington on the Hoko Ozette Road. The Site is surrounded by forest, with a county road to the west and a private residential property to the southwest (Vicinity Map - Appendix 6.1). The Site is currently vacant and overgrown with trees and brush (Site Plan - Appendix 6.2). Following remedial activities at the Site, a restrictive covenant was recorded for the property and a no further action determination was issued by Ecology in 2002.

Rayonier operated Hoko Camp as a logging base and locomotive fueling station for their logging railroad locomotives from approximately the late 1920's until the late 1960's. It is believed that steam locomotives operated at the camp for much of the period of operation. The fuel used for the steam locomotives was a heavy oil product. Most locomotive maintenance was conducted at other sites. Dismantling of the site buildings, foundations, and rail lines occurred after the camp operation ceased in the 1960's. The site was re-forested after dismantling. The site is currently located on one of the timberland properties managed by Rayonier. A portion of the property including the camp site was recently logged allowing access and visibility.

### **2.2 Site Investigations**

Landau Associates representatives visited the Hoko Camp site on September 28 and 29, 2000 to conduct a reconnaissance investigation. The purpose of the reconnaissance was to collect samples and document site conditions. Conditions observed during the reconnaissance visit included: approximate positions of former railroad grades for main line and sidings; metal, timbers and concrete footings that were the apparent remains of camp structures; and heavy petroleum product present at four locations (Areas A, B, C, and D) including one area (Area C) with product residue extending down-slope from the former main railroad grade.

No other total petroleum hydrocarbon (TPH) contamination was identified. The heavy petroleum hydrocarbon fuel was apparently released sometime during camp operation or during dismantling of the camp. The amount of heavy fuel oil released was not known. The TPH material on the slope appeared to have migrated east of the former railroad tracks in part through two 10-inch culverts. During the reconnaissance, both backhoe explorations and shallow hand explorations were conducted to confirm the apparent extent of surface and near-surface product.

As a component of the reconnaissance sampling, petroleum product and soil samples were analyzed for TPH, polychlorinated biphenyls (PCBs), and volatile organic compounds (VOCs). The results of the reconnaissance testing showed:

- Petroleum contamination was primarily surficial and defined a relatively shallow lower boundary between contaminated and uncontaminated soil.
- Petroleum detections were a single degraded heavy hydrocarbon (oil range) product.

- 
- No PCBs were detected.
  - Relatively low concentrations of VOCs were detected in petroleum product samples and soil samples. Detected VOCs were commonly petroleum-related compounds such as toluene and xylenes. Two other VOCs (acetone and methylene chloride) were detected. Both acetone and methylene chloride are common laboratory solvents and the detections are attributed to laboratory sources.

## 2.3 Cleanup Levels

MTCA Method A cleanup levels for unrestricted land use were used for the Site. Current MTCA Method A cleanup levels for heavy petroleum changed significantly in 2001 during remedial activities. Because a no further action determination was issued for the Site after 2001, current MTCA Method A cleanup levels will be used to determine whether or not the remedial activities at the Site have been effective in protecting human health and the environment.

## 2.4 Remedial Activities

As discussed previously, four areas with TPH that required cleanup were identified. No other areas with TPH above cleanup levels were identified. The areas were designated Areas A, B, C, and D, as described below:

- Areas A and B are in the vicinity of the former logging camp's sidings and main railroad track at the northern end of the site. The Hoko Camp site and Areas A and B are located on the first terrace, which is not closer than approximately 200 ft from the river.
- Area C extends down the slope from the first terrace towards the Hoko River.
- Area D is adjacent to the grade of the former main rail line south of Area B on the first terrace.

### 2.4.1 Areas A, B and D

Soil was excavated from areas A, B, and D using earth moving equipment on August 28, 29, and 30, 2001. The extent and depths of excavations was based on cleanup monitoring observations and sampling results. Following confirmation sampling and review of the results from the mobile laboratory, the excavations were determined to be clean and available for backfill. Excavations were backfilled with clean soil, compacted with grading equipment, graded to match site conditions, and covered with forest debris.

### 2.4.2 Area C

The TPH material in Area C extended from the former railroad grade down the slope to near the Hoko River. As discussed with Clallam County in conjunction with the Shoreline Exemption, no machinery was used to conduct excavations on the slope above the river. Accordingly, excavation of Area C material was conducted manually using hand tools (e.g., shovels) on August 27, 28, 30, and 31, 2001.

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The TPH occurred both as a hard surface crust and locally as a buried 2- to 6-inch layer of brown biodegraded tarry petroleum product mixed with the subsurface humus. The immobility of the highly viscous oil is evident by its remaining on a steep slope for the past 40 to 70 years. The buried tarry TPH in Area C was observed to be bound by humus and tree roots and covered under years of forest debris.

A partial excavation of TPH was conducted in Area C. Approximately 5-8 yds of TPH material were excavated in Area C using manual (shovel) methods. Manual excavations extended to depths from approximately 0.5 ft to 2.5 ft in depth.

Following confirmation sampling and review of the TPH analysis results from the mobile laboratory, the Area C excavations were backfilled and graded with hand shovels. Excavations were backfilled with clean soil, compacted by foot, raked to match the grade of the slope, and covered with a heavy layer of forest litter material to prevent erosion on the steep slope.

A field decision was made to remove the accessible surface TPH material and accessible deeper TPH material in Area C, but to restrict deeper hand excavation to areas that were less likely to threaten the stability of soil and trees on the upper slope. The result of this decision was that "islands" of TPH material remain buried on the upper slope of Area C adjacent to trees. The observations supporting this decision included:

- Apparently healthy red alder and conifer trees (at least 30 years old) growing in the humus, organic soil, and degrading TPH product
- The presence of earthworms in and around the degrading TPH product
- Roots, root tips, root masses of living trees extend into and were present above degrading TPH product.

These observations made clear that removal of soil with TPH product would require cutting the trees, removing the stumps, and removing up to 3 ft or more of the shallow soil from the slope. Even a more limited excavation approach around the roots could compromise the stability of the trees, and cause trees to fall exposing the roots, thereby exposing TPH and affecting soil stability on the slope above the river. When considering the relative benefits from complete vs. partial removal, the benefit of partial removal of TPH material and protection of habitat conditions on the slope outweighed that of complete removal due to the high potential of damage to existing forest habitat (soil, river, and trees) and sensitive areas (slope stability). Additionally, forest management regulations are unlikely to allow timber harvesting on the slope above the river; accordingly, the TPH material remaining in Area C slope was not disturbed.

## **2.5 Restrictive Covenant**

Following remediation activities, it was determined that institutional controls were necessary for the Site to receive a No Further Action determination due to residual contamination on the slope of Area C. A Restrictive Covenant was recorded for the Site in 2003. The Restrictive Covenant imposes the following limitations:

1. Any activity on the property that may result in the release or exposure to the environment of the contaminated soil that remained as part of the remedial action is prohibited.
2. Any activity on the Site that may interfere with the integrity of the remedial action is prohibited.
3. Any activity that may result in the release of a hazardous substance that remains on the property is prohibited.
4. The owner of the Site must give written notice to Ecology of the owner's intent to convey any interest in the Site.
5. The owner must restrict leases to uses and activities consistent with the restrictive covenant.
6. The owner must notify and obtain approval from Ecology prior to any use of the Site that may be inconsistent with the terms of the Restrictive Covenant.
7. The owner or successor owner shall grant Ecology the right to enter the site at reasonable times.
8. The owner or successor owner reserves the right to remove this Covenant with Ecology's approval.

The Restrictive Covenant is available as Appendix 6.3.

## **3.0 PERIODIC REVIEW**

### **3.1 Effectiveness of completed cleanup actions**

Based upon the site visit conducted on August 4, 2009, the Site is vacant and overgrown with trees and shrubs. The Site is not used for any human activity and is relatively inaccessible. The Site use and condition continues to reduce exposure pathways (ingestion, contact) to contaminated soils. A photo log is available as Appendix 6.4.

The Restrictive Covenant for the Site was recorded and is in place. This Restrictive Covenant prohibits activities that will result in the release of contaminants that remain as part of the cleanup without Ecology's approval, and prohibits any use of the property that is inconsistent with the Covenant. This Restrictive Covenant serves to assure the long term protective property use and integrity of the property surface.

### **3.2 New scientific information for individual hazardous substances for mixtures present at the Site**

Cleanup levels at the site were based on regulatory standards rather than calculated risk for chemicals and/or media. These standards were sufficient to be protective of site-specific conditions.

### **3.3 New applicable state and federal laws for hazardous substances present at the Site**

Cleanup levels for TPH in soil have not changed since the no further action determination was issued for the Site in 2002.

### **3.4 Current and projected site use**

The site is currently vacant. This use is not expected to change in the near future and is not likely to have a negative impact on the risk posed by hazardous substances contained at the Site.

### **3.5 Availability and practicability of higher preference technologies**

The remedy implemented included soil removal and thermal desorption of hazardous substances which continues to be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at this Site.

### **3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels**



The analytical methods used at the time of the remedial actions were capable of detection below MTCA Method A cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the site.

## 4.0 CONCLUSIONS

- The cleanup actions completed at the Site appear to be protective of human health.
- Soils cleanup levels have not been met at the Site; however, under WAC 173-340-740(6) (d), the cleanup action is determined to comply with cleanup standards, since the long-term integrity of the remedial action is ensured and the requirements for containment technologies in WAC 173-340-360(8) have been met.
- The Restrictive Covenant for the property is in place and will be effective in protecting public health from exposure to hazardous substances and protecting the integrity of the cleanup action.

Based on this review, the Department of Ecology has determined that the requirements of the Restrictive Covenant are being satisfactorily met. It is the property owner's responsibility to continue to inspect the site to assure that the integrity of the remedial action is maintained to ensure continued protection of human health and the environment.

### 4.1 Next Review

The next review for the site will be scheduled five years from the date of this periodic review. In the event that additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years from the completion of those activities.

## 5.0 REFERENCES

Landau Associates, Inc., *Technical Memorandum-Reconnaissance Sampling Results*,  
October 22, 2001.

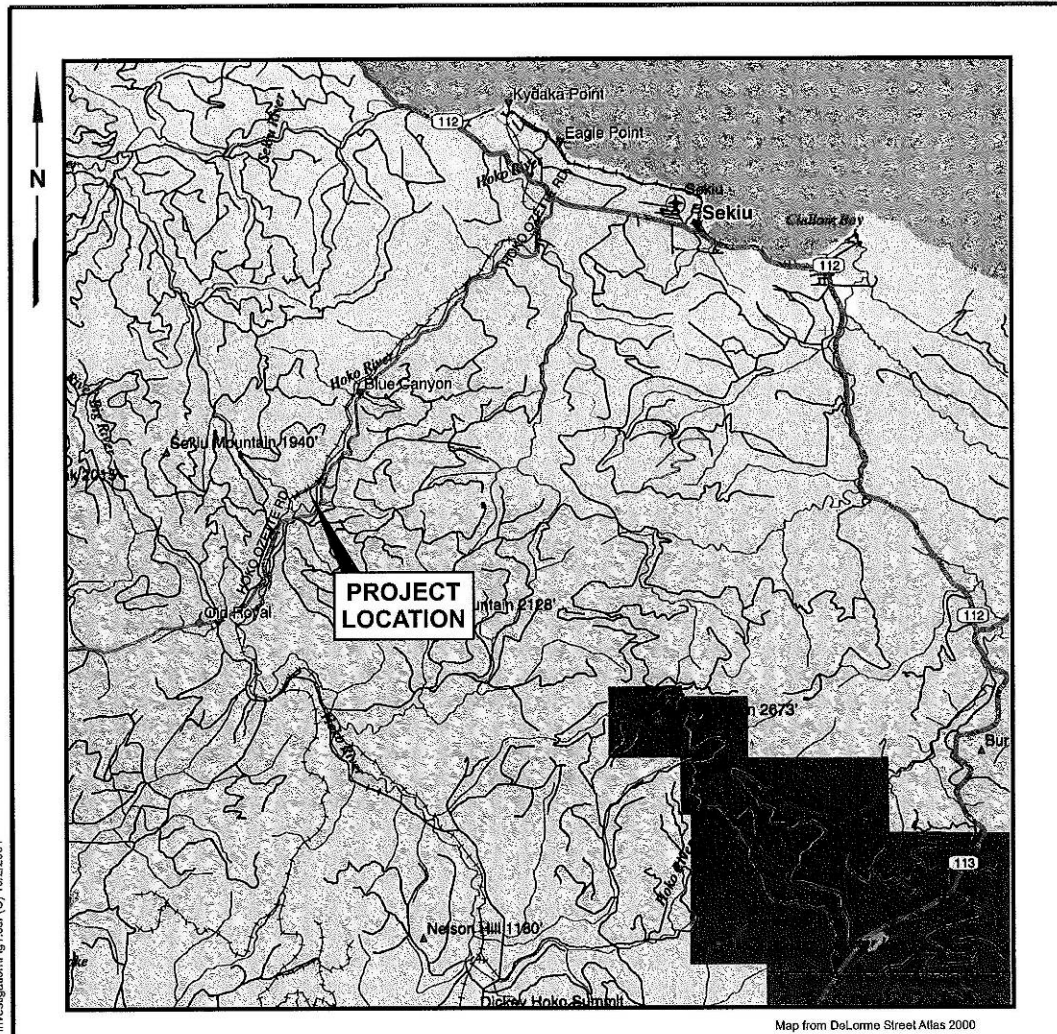
Landau Associates, Inc., *Independent Cleanup Action-Former Hoko Logging Camp*,  
March 31, 1998.

Ecology, *Restrictive Covenant*, 2003.

Ecology, *Site Visit*, 2009.

## **6.0 APPENDICES**

### 6.1 Vicinity Map



Not To Scale

Rayonier/Hoko Camp Site Reconnaissance | T\016\025\031\Site Investigation\Fig1.cdr (C) 10/2/2001

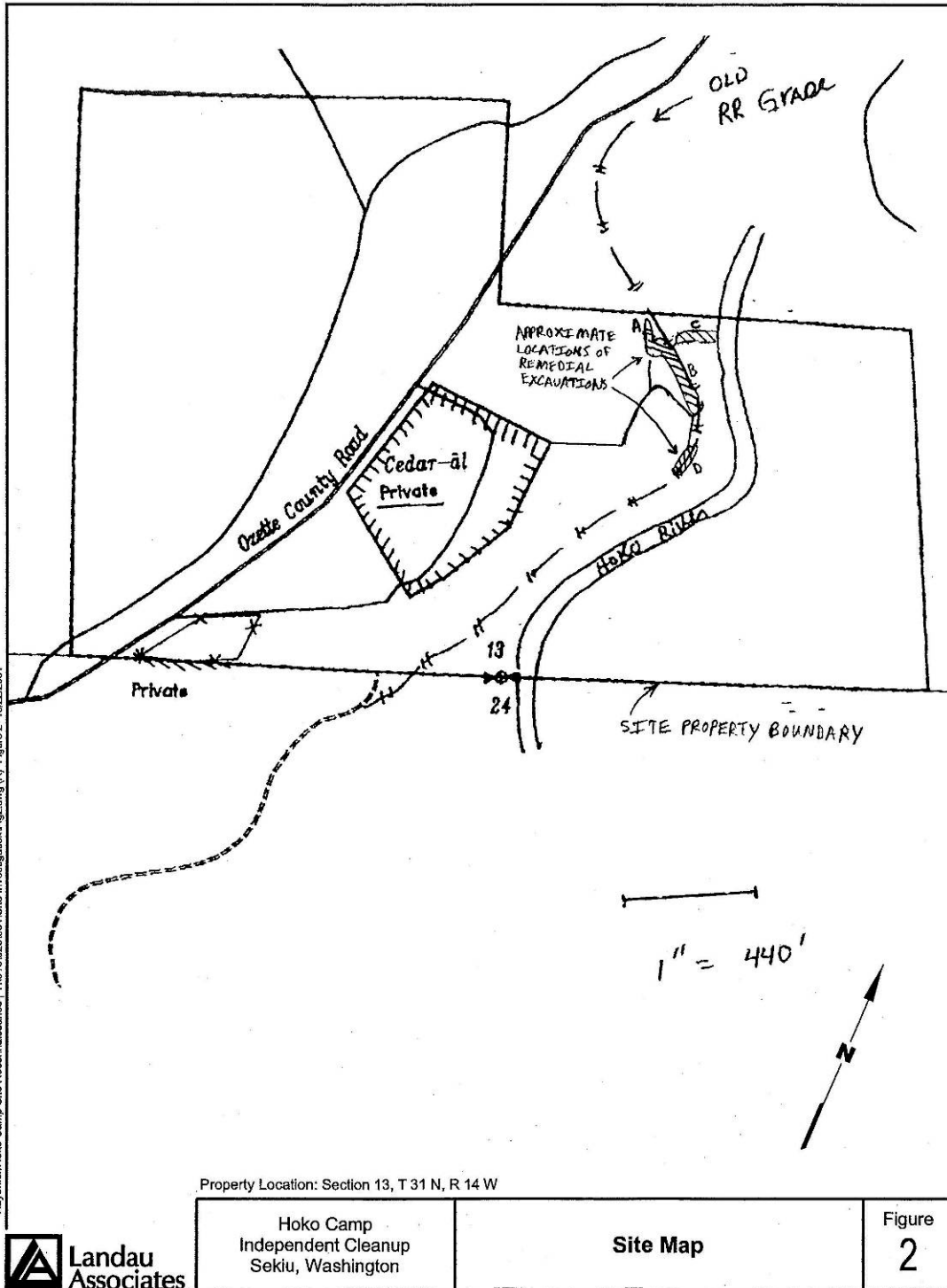


Hoko Camp  
Independent Cleanup  
Sekiu, Washington

Vicinity Map

Figure  
1

## 6.2 Site Plan



RayonierHoko Camp Site Reconnaissance | T:\016\025\051\Site Investigation\Fig2.dwg (A) Figure 2 10/22/2007

### 6.3 Environmental Covenant



2003 1099230 Clallam  
County

FILED FOR RECORD AT THE REQUEST

OF RTOC  
RECORDED IN RECORDS/CLALLAM CO.

2003 JAN 14 AM 9:07

**AFTER RECORDING RETURN TO:**

Donald L. Schwendiman  
Rayonier Timberlands Operating Co.  
3625 - 132<sup>nd</sup> Ave SE, Suite 200  
Bellevue WA 98006-1323

6

#### RESTRICTIVE COVENANT

**DOCUMENT TITLE(s):**

1. Restrictive Covenant

**REFERENCE NUMBER(s) OF DOCUMENTS ASSIGNED OR RELEASED**

None

**GRANTOR(s):**

1. Rayonier Timberlands Operating Company L.P.

**GRANTEE(s):**

1. N/A

**LEGAL DESCRIPTION:**

PART OF THE SW ¼ OF THE SE ¼ OF SECTION 13, TOWNSHIP 31 NORTH, RANGE 14 WEST, W.M., CLALLAM COUNTY, WASHINGTON, MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTH ¼ CORNER OF SAID SECTION 13; THENCE N18°55'04"W A DISTANCE OF 410.32 FEET TO A ¾" IRON PIPE AS SHOWN ON SURVEY FILED IN VOLUME 37, PAGE 50 RECORDS OF CLALLAM COUNTY, WASHINGTON; THENCE N55°15'00"E A DISTANCE OF 257.03 FEET TO A ¾" IRON PIPE AS SHOWN ON SAID SURVEY; THENCE N27°42'00"E A DISTANCE OF 307.00 FEET TO A 1" PIPE AS SHOWN ON SAID SURVEY; THENCE N53°19'33"E A DISTANCE OF 538.49 FEET TO A ½" REBAR WITH PLASTIC CAP STAMPED LS 29269 AND THE TRUE POINT OF BEGINNING; THENCE N86°57'40"E A DISTANCE OF 57.31 FEET TO A ½" REBAR WITH PLASTIC CAP STAMPED LS 29269; THENCE N11°15'11"E A DISTANCE OF 77.20 FEET TO A ½" REBAR WITH PLASTIC CAP STAMPED LS 29269; THENCE S68°12'30"W A DISTANCE OF 96.80 FEET TO A ½" REBAR WITH PLASTIC CAP STAMPED LS 29269; THENCE S22°20'00"E A DISTANCE OF 46.29 FEET TO THE TRUE POINT OF BEGINNING.

**ASSESSOR'S PROPERTY TAX PARCEL/ACCOUNT NUMBER(s):**

143113-003000

RESTRICTIVE COVENANT

RAYONIER TIMBERLANDS OPERATING COMPANY, L.P.

HOKO RIVER SITE

This Declaration of Restrictive Covenant is made pursuant to RCW 70.105D.030(1)(f) and (g) and WAC 173-340-440 by Rayonier Timberlands Operating Company, L.P., its successors and assigns (hereafter "RTOC"), and the State of Washington Department of Ecology, its successors and assigns (hereafter "Ecology").

An independent remedial action (hereafter "Remedial Action") occurred at the property that is the subject of this Restrictive Covenant. The Remedial Action conducted at the property is described in the following documents: Hoko Camp, Reconnaissance Sampling Results, January 4, 2001, by Landau Associates, and Independent Cleanup Action, Former Hoko Logging Camp, Sekiu, WA, by Landau Associates, October 22, 2001. These documents are on file at Ecology's SWRO.

This Restrictive Covenant is required because the Remedial Action resulted in residual concentrations of total petroleum hydrocarbons which exceed the Model Toxics Control Act Method A Residential Cleanup Level for soil established under WAC 173-340-704(1)(b).

RTOC is the fee owner of real property (hereafter "Property") in the County of Clallam, State of Washington, that is subject to this Restrictive Covenant. The Property is legally described in Attachment A of this Restrictive Covenant which is made a part hereof by reference.



RTOC makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, as provided by law and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Property (hereafter "Owner").

Section 1. Any activity on the Property that may result in the release or exposure to the environment of the contaminated soil that was contained as part of the Remedial Action, or create a new exposure pathway, is prohibited. Some examples of activities that are prohibited in the capped areas include: drilling, digging, placement of any objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the surface with a rod, spike or similar item, bulldozing or earthwork, cutting down or removal of fallen trees or other vegetative growth.

Section 2. Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.

Section 3. Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property as part of the Remedial Action, or create a new exposure pathway, is prohibited without prior written approval from Ecology.

Section 4. The Owner of the property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action.

Section 5. The Owner must restrict leases to uses and activities consistent with the Restrictive Covenant and notify all lessees of the restrictions on the use of the Property.

Section 6. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Restrictive Covenant. Ecology may approve any inconsistent use only after public notice and comment.

Section 7. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Action; to take samples, to inspect remedial actions conducted at the property, and to inspect records that are related to the Remedial Action.

Section 8. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Restrictive Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

RAYONIER TIMBERLANDS OPERATING COMPANY, L.P.

By: Rayonier Timberlands Management, Inc.  
Managing General Partner

By:   
Donald L. Schwendiman  
Assistant Secretary

Date Signed: Jan 21, 2002

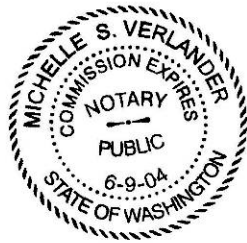
STATE OF WASHINGTON )  
 )  
County of KING )

SS.

I certify that I know or have satisfactory evidence that Donald L. Schwendiman is the person who appeared before me, and that said person acknowledged that he signed this instrument, on

stated that he was authorized to execute this instrument and acknowledged it as the Assistant Secretary of Rayonier Timberlands Management Inc. to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Given under my hand and official seal this 21<sup>st</sup> day of January, 2002.



Michelle S. Verlander  
Notary Public in and for the  
State of Washington  
Residing at Kent  
My appointment expires: 6/09/2004

"Unofficial Copy"

**ATTACHMENT A**

PART OF THE SW ¼ OF THE SE ¼ OF SECTION 13, TOWNSHIP 31 NORTH, RANGE 14 WEST, W.M., CLALLAM COUNTY, WASHINGTON, MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTH ¼ CORNER OF SAID SECTION 13; THENCE N18°55'04"W A DISTANCE OF 410.32 FEET TO A ¾" IRON PIPE AS SHOWN ON SURVEY FILED IN VOLUME 37, PAGE 50 RECORDS OF CLALLAM COUNTY, WASHINGTON; THENCE N55°15'00"E A DISTANCE OF 257.03 FEET TO A ¾" IRON PIPE AS SHOWN ON SAID SURVEY; THENCE N27°42'00"E A DISTANCE OF 307.00 FEET TO A 1" PIPE AS SHOWN ON SAID SURVEY; THENCE N53°19'33"E A DISTANCE OF 538.49 FEET TO A ½" REBAR WITH PLASTIC CAP STAMPED LS 29269 AND THE TRUE POINT OF BEGINNING; THENCE N86°57'40"E A DISTANCE OF 57.31 FEET TO A ½" REBAR WITH PLASTIC CAP STAMPED LS 29269; THENCE N11°15'11"E A DISTANCE OF 77.20 FEET TO A ½" REBAR WITH PLASTIC CAP STAMPED LS29269; THENCE S68°12'30"W A DISTANCE OF 96.80 FEET TO A ½" REBAR WITH PLASTIC CAP STAMPED LS 29269; THENCE S22°20'00"E A DISTANCE OF 46.29 FEET TO THE TRUE POINT OF BEGINNING.

"Unofficial"

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## 6.4 Photo log

**Photo 1: Site from County Road - from the northwest**



**Photo 2: Former Rail Bed – from the southeast**



**Photo 3: General Site Condition - from the northwest**



**Photo 4: Former Rail Bed – from the northwest**

