

Project Name/Location:

Contract Number: W9127N-05-C-0012

Columbia River Channel Improvement - RM 16+10 to 17+40

Date: 09/23/2005

| Dredging | Sample Point | Depth (ft) | Time | X Coordinate | Y Coordinate | Turbidity (NTU) | DO (Mg/L) |
|--------------------------|--------------|------------|----------|--------------|--------------|-----------------|-----------|
| Load Number | DR-1 | 20.9 | 10:29:21 | 7368737.93 | 943252.63 | 1.7 | |
| 914 | DR-3 | 19.0 | 10:30:41 | 7368195.98 | 943013.14 | 12.9 | |
| Tidal Stage | DR-3R1 | 19.2 | 10:30:52 | 7368148.61 | 942990.74 | 6.5 | |
| Ebb | DR-2 | 20.8 | 10:32:21 | 7367898.82 | 943286.86 | 22.8 | 8.2 |
| Dredge State: | DR-2R1 | 20.9 | 10:32:25 | 7367881.71 | 943281.47 | 20.3 | 8.3 |
| Overflow through | DR-4 | 21.4 | 10:33:49 | 7367249.21 | 942997.04 | 10.8 | |
| skimmers only | DR-4R1 | 21.0 | 10:33:55 | 7367240.78 | 942997.38 | 10.3 | |
| Weather: | | | | | | | |
| Clear | | | | | | | |
| Wind: | | | | | | | |
| 0-5 kts | | | | | | | |
| Seas: | | | | | | | |
| 0-1' | | | | | | | |
| Disposal location | | | | | | | |
| Columbia River RM 17 | | | | | | | |

| Remarks: | Action Taken: |
|--|---|
| DR-2 exceeded 10% over background, taken in the plume. | Re-test DR-2R1 was taken. |
| DR-4 exceeded 10% over background, taken in the plume. | Re-test DR-4R1 was taken. |
| DR-3 exceeded 10% over background, taken out of the plume, on starboard side. | Re-test DR-3R1 was taken. |
| DSP-3 taken out of order to ensure completion of test. | The dredge moved away from the area while continuing dredging to avoid further increasing the turbidity at the location where the exceedence was measured. The dredge coordinates were marked on the GPS screen to insure no further dredging occurred at the location where the exceedence was measured. |

| Sample Point Key | All Tests Conducted With YSI 6600 | Turbidity Compliance | DO Compliance |
|------------------|---|----------------------|---------------|
| DR-1 | Background - 100' Up Current, Within 600-Foot of Channel | | |
| DR-2 | 100' Down Current | OR | OR, WA |
| DR-3 | 300' Radially from point of dredge (Port or Starboard) | WA | Not Required |
| DR-4 | 900' Down Current from point of dredging | WA | Not Required |
| Rx | Indicates a Re-Test where (x) is the Re-Test number for that particular point | | |

Project Name/Location:

Contract Number: W9127N-05-C-0012

Columbia River Channel Improvement - RM 14+45 to 16+10

Date: 09/23/2005

| Dredging | Sample Point | Depth (ft) | Time | X Coordinate | Y Coordinate | Turbidity (NTU) | DO (Mg/L) |
|--------------------------|--------------|------------|----------|--------------|--------------|-----------------|-----------|
| Load Number | DR-1 | 21.1 | 12:49:07 | 7365977.48 | 942574.51 | 1.5 | |
| 915 | DR-3 | 20.4 | 12:50:56 | 7366357.23 | 942358.22 | 4.5 | |
| Tidal Stage | DR-3R1 | 20.5 | 12:51:01 | 7366361.20 | 942351.98 | 3.8 | |
| Flood | DR-2 | 20.7 | 12:52:24 | 7366635.78 | 942249.50 | 26.7 | 8.7 |
| Dredge State: | DR-2R1 | 20.6 | 12:52:31 | 7366635.78 | 942249.50 | 29.5 | 8.6 |
| Overflow through | DR-4 | 20.6 | 12:54:07 | 7367235.57 | 942559.58 | 12.3 | |
| skimmers only | DR-4R1 | 21.1 | 12:54:14 | 7367244.00 | 942559.24 | 8.2 | |
| Weather: | | | | | | | |
| Clear | | | | | | | |
| Wind: | | | | | | | |
| 0-5 kts | | | | | | | |
| Seas: | | | | | | | |
| 1-2' | | | | | | | |
| Disposal location | | | | | | | |
| Columbia River DWS | | | | | | | |

| Remarks: | Action Taken: |
|---|---|
| DR-2 exceeded 10% over background, taken in the plume. | Re-test DR-2R1 was taken. |
| DR-4 exceeded 10% over background, taken in the plume. | Re-test DR-4R1 was taken. |
| DR-3 exceeded 10% over background, taken out of the plume, on starboard side. | Re-test DR-3R1 was taken. |
| DSP-3 taken out of order to ensure completion of test. | The dredge moved away from the area while continuing dredging to avoid further increasing the turbidity at the location where the exceedence was measured. The dredge coordinates were marked on the GPS screen to insure no further dredging occurred at the location where the exceedence was measured. |

| Sample Point Key | All Tests Conducted With YSI 6600 | Turbidity Compliance | DO Compliance |
|------------------|---|----------------------|---------------|
| DR-1 | Background - 100' Up Current, Within 600-Foot of Channel | | |
| DR-2 | 100' Down Current | OR | OR, WA |
| DR-3 | 300' Radially from point of dredge (Port or Starboard) | WA | Not Required |
| DR-4 | 900' Down Current from point of dredging | WA | Not Required |
| Rx | Indicates a Re-Test where (x) is the Re-Test number for that particular point | | |

Project Name/Location:

Contract Number: W9127N-05-C-0012

Columbia River Channel Improvement - RM 14+45 to 16+10

Date: 09/23/2005

| Dredging | Sample Point | Depth (ft) | Time | X Coordinate | Y Coordinate | Turbidity (NTU) | DO (Mg/L) |
|---------------------------------|--------------|------------|----------|--------------|--------------|-----------------|-----------|
| Load Number | DR-1 | 20.2 | 18:27:34 | 7364517.00 | 940845.75 | 1.4 | |
| 916 | DR-2 | 20.7 | 18:29:28 | 7364833.84 | 941362.04 | 46.7 | 8.7 |
| Tidal Stage | DR-2R1 | 20.3 | 18:29:32 | 7364838.06 | 941361.86 | 44.8 | 8.9 |
| Ebb | DR-4 | 20.6 | 18:30:49 | 7365228.77 | 941516.20 | 19.5 | |
| Dredge State: | DR-4R1 | 20.7 | 18:30:52 | 7365228.77 | 941516.20 | 19.3 | |
| Overflow through side discharge | DR-3 | 19.3 | 18:33:36 | 7364197.46 | 940676.34 | 2.0 | |
| | DR-3R1 | 21.3 | 18:33:46 | 7364197.46 | 940676.34 | 1.9 | |
| Weather: | | | | | | | |
| Clear | | | | | | | |
| Wind: | | | | | | | |
| 0-5 kts | | | | | | | |
| Seas: | | | | | | | |
| 0-1' | | | | | | | |
| Disposal location | | | | | | | |
| Columbia River DWS | | | | | | | |

| Remarks: | Action Taken: |
|--|---|
| DR-2 exceeded 10% over background, taken in the plume. | Re-test DR-2R1 was taken. |
| DR-4 exceeded 10% over background, taken in the plume. | Re-test DR-4R1 was taken. |
| DR-3 exceeded 10% over background, taken out of the plume, on port side. | Re-test DR-3R1 was taken. |
| | The dredge moved away from the area while continuing dredging to avoid further increasing the turbidity at the location where the exceedence was measured. The dredge coordinates were marked on the GPS screen to insure no further dredging occurred at the location where the exceedence was measured. |

| Sample Point Key | All Tests Conducted With YSI 6600 | Turbidity Compliance | DO Compliance |
|------------------|---|----------------------|---------------|
| DR-1 | Background - 100' Up Current, Within 600-Foot of Channel | | |
| DR-2 | 100' Down Current | OR | OR, WA |
| DR-3 | 300' Radially from point of dredge (Port or Starboard) | WA | Not Required |
| DR-4 | 900' Down Current from point of dredging | WA | Not Required |
| Rx | Indicates a Re-Test where (x) is the Re-Test number for that particular point | | |

Project Name/Location:

Contract Number: W9127N-05-C-0012

Columbia River Channel Improvement - RM 16+10 to 17+40

Date: 09/23/2005

| Disposal <u>Load Number</u> | Sample Point | Depth (ft) | Time | X Coordinate | Y Coordinate | Turbidity (NTU) | DO (Mg/L) |
|--|--------------|------------|----------|--------------|--------------|-----------------|-----------|
| 914 | DSP-1 | 21.3 | 12:01:16 | 7374894.97 | 945837.39 | 2.1 | |
| <u>Tidal Stage</u> | DSP-2 | 19.9 | 12:07:14 | 7373210.51 | 945017.46 | 2.6 | 6.9 |
| Flood | DSP-2R1 | 19.4 | 12:07:20 | 7373210.51 | 945017.46 | 2.7 | 7.0 |
| <u>Dredge State:</u> | DSP-3 | 17.5 | 12:08:16 | 7373575.33 | 945057.42 | 2.8 | |
| Split Hull | DSP-3R1 | 21.7 | 12:09:02 | 7373597.64 | 945086.93 | 2.2 | |
| | DSP-4 | 20.6 | 12:11:47 | 7373104.61 | 945009.59 | 5.0 | |
| | DSP-4R1 | 20.5 | 12:11:52 | 7373100.40 | 945009.76 | 4.2 | |
| <u>Weather:</u> Partly Cloudy | | | | | | | |
| <u>Wind:</u> 0-5 kts | | | | | | | |
| <u>Seas:</u> 1'-2' | | | | | | | |
| <u>Disposal location</u> Columbia River RM 17 | | | | | | | |

| Remarks: | Action Taken: |
|---|--------------------------------------|
| DSP-2 exceeded 10% over background, taken in the plume. | Re-test DSP-2R1 was taken. |
| DSP-4 exceeded 10% over background, taken in the plume. | Re-test DSP-4R1 was taken. |
| DSP-3 exceeded 10% over background, taken out of the plume, on starboard side. | Re-test DSP-3R1 was taken. |
| DSP-3 taken out of order to ensure completion of test. | The dredge returned to the dig area. |
| | |

| Sample Point Key | All Tests Conducted With YSI 6600 | Turbidity Compliance | DO Compliance |
|------------------|---|----------------------|---------------|
| DSP-1 | Background - 100' Up Current, Within 600-Foot of Channel | | |
| DSP-2 | 100' Down Current | OR | OR, WA |
| DSP-3 | 150' Radially from point of dredge (Port or Starboard) | WA | Not Required |
| DSP-4 | 900' Down Current from point of dredging | WA | Not Required |
| Rx | Indicates a Re-Test where (x) is the Re-Test number for that particular point | | |