

COLUMBIA RIVER CHANNEL IMPROVEMENTS - DREDGING

| <b>DREDGE OREGON</b>   |   | Contract Number: W9127N-06-C-CRCI                       |             |                      |                     |                             |                      |    |
|--|---|---|-------------|----------------------|---------------------|-----------------------------|----------------------|----|
| <b>Project Name/Location:</b>  |   | Columbia River Channel Improvement, RM 101+10 to 100+40 |             |                      |                     |                             |                      |    |
| <b>12/14/2005</b>  |   |   |             |                      |                     |                             |                      |    |
| <b>Dredge</b><br>OREGON  | <b>Sample Point</b>   | <b>Depth (ft)</b>                                       | <b>Time</b> | <b>X-Coordinate</b>  | <b>Y-Coordinate</b> | <b>Turbidity (NTU)</b>      | <b>DO (Mg/L)</b>     |    |
|  | DRP-1 (21)  | 20.2  | 7:27:57     | 7622675.9            | 735387.2            | 2.5                         | NA                   |    |
|  | DRP-2 (22)  | 19.3  | 7:36:56     | 7622602.9            | 735847.0            | 2.7                         | 12.6                 |    |
|  | <b>Tidal Stage</b>  | DRP-3 (23)  | 0.0         | 7:38:42              | 7622549.2           | 736084.9                    | 1521.7               | NA |
|  | Ebb   | DRP-3R <sub>1</sub> (23)                                | 19.8        | 7:44:57              | 7622544.0           | 736035.1                    | 2.9                  | NA |
|  | DRP-4 (24)  | 20.4  | 7:49:53     | 7622783.2            | 735800.0            | 2.4                         | NA                   |    |
| <b>Weather:</b>  | Retest @ point of exceedance  |   |             |                      |                     |                             |                      |    |
| Clear, Cold  |   |   |             |                      |                     |                             |                      |    |
| <b>Wind:</b>   |   |   |             |                      |                     |                             |                      |    |
| Calm   |   |   |             |                      |                     |                             |                      |    |
| <b>Seas:</b>   |   |   |             |                      |                     |                             |                      |    |
| Calm   |   |   |             |                      |                     |                             |                      |    |
| <b>Disposal location</b>   | All coordinates are Oregon State Plane North 3601; Datum: NAD 83              |   |             |                      |                     |                             |                      |    |
| Gateway (upland)   |   |   |             |                      |                     |                             |                      |    |
| <b>Remarks:</b>  |   |   |             | <b>Action Taken:</b> |                     |                             |                      |    |
| No exceedances.  |   |   |             | None required.       |                     |                             |                      |    |
| DRP-3R <sub>1</sub> (23) Retake due to inadvertent initiation of reading |   |   |             |                      |                     |                             |                      |    |
| while sonde was out of water.  |   |   |             |                      |                     |                             |                      |    |
| Sample point numbers in parenthesis correspond with                      |   |   |             |                      |                     |                             |                      |    |
| YSI 650 MDS logged data.   |   |   |             |                      |                     |                             |                      |    |
| <b>Sample Point Key</b>  | <b>All Tests Conducted With YSI 6600</b>                                      |   |             |                      |                     | <b>Turbidity Compliance</b> | <b>DO Compliance</b> |    |
| DRP-1  | Background - 100' Up Current, Within 600-Foot of Channel                      |   |             |                      |                     | N/A                         | Not Required         |    |
| DRP-2  | 100' Down Current of the Cutterhead   |   |             |                      |                     | OR                          | OR, WA               |    |
| DRP-3  | 300' Down Current of the Cutterhead   |   |             |                      |                     | WA                          | Not Required         |    |
| DRP-4  | 150' lateral of the cutterhead (Port or Starboard)                            |   |             |                      |                     | WA                          | Not Required         |    |
| DRPT   | Indicates additional testing at the point of exceedance                       |   |             |                      |                     |                             |                      |    |
| Rx   | Indicates a Re-Test where (x) is the Re-Test number for that particular point |   |             |                      |                     |                             |                      |    |

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| <b>DREDGE OREGON</b>   |   | Contract Number: W9127N-06-C-CRCI                                |             |                      |                     |                             |                      |
|--|---|--|-------------|----------------------|---------------------|-----------------------------|----------------------|
| <b>Project Name/Location:</b><br>Columbia River Channel Improvement, RM 101+10 to 100+40<br><b>12/14/2005</b>  |   |  |             |                      |                     |                             |                      |
| <b>Dredge</b><br>Oregon<br><b>Tidal Stage</b><br>Ebb<br><br><b>Weather:</b><br>Clear, cold<br><b>Wind:</b><br>Calm<br><b>Seas:</b><br>Calm<br><b>Disposal location</b><br>Gateway (Upland) | <b>Sample Point</b>   | <b>Depth (ft)</b>  | <b>Time</b> | <b>X-Coordinate</b>  | <b>Y-Coordinate</b> | <b>Turbidity (NTU)</b>      | <b>DO (Mg/L)</b>     |
|  | DSPP-1 (11)   | 20.0   | 7:54:35     | 7623853.0            | 735540.6            | 2.3                         | NA                   |
|  | DSPP-2 (12)   | 20.1   | 7:58:07     | 7623806.5            | 735761.5            | NA                          | 12.4                 |
|  | DSPP-3 (13)   | 19.9   | 8:03:20     | 7623511.6            | 736173.5            | 3.6                         | NA                   |
|  |   | <b>Retest @ point of exceedance</b>                              |             |                      |                     |                             |                      |
|  |   | All coordinates are Oregon State Plane North 3601; Datum: NAD 83 |             |                      |                     |                             |                      |
| <b>Remarks:</b>  |   |  |             | <b>Action Taken:</b> |                     |                             |                      |
| No exceedances.  |   |  |             | None required.       |                     |                             |                      |
| Sample point numbers in parenthesis correspond with YSI 650 MDS logged data.   |   |  |             |                      |                     |                             |                      |
| <b>Sample Point Key</b>  | <b>All Tests Conducted With YSI 6600</b>                                      |  |             |                      |                     | <b>Turbidity Compliance</b> | <b>DO Compliance</b> |
| DSPP-1   | 100' up current (background) within 600' channel                              |  |             |                      |                     | N/A                         | N/A                  |
| DSPP-2   | 100' down current from the discharge  |  |             |                      |                     | Not Required                | WA                   |
| DSPP-3   | 600' down current, 150' lateral to the discharge                              |  |             |                      |                     | WA                          | Not Required         |
| DSPPT  | Indicates additional testing at the point of exceedance                       |  |             |                      |                     |                             |                      |
| Rx   | Indicates a Re-Test where (x) is the Re-Test number for that particular point |  |             |                      |                     |                             |                      |

COLUMBIA RIVER CHANNEL IMPROVEMENTS - DREDGING

| <b>DREDGE OREGON</b>   |   | Contract Number: W9127N-06-C-CRCI                                |             |                      |                     |                             |                      |
|--|---|--|-------------|----------------------|---------------------|-----------------------------|----------------------|
| <b>Project Name/Location:</b><br>Columbia River Channel Improvement, RM 101+10 to 100+40<br><b>12/14/2005</b>  |   |  |             |                      |                     |                             |                      |
| <b>Dredge</b><br>Oregon<br><b>Tidal Stage</b><br>Ebb<br><br><b>Weather:</b><br>Cold, clear<br><b>Wind:</b><br>Calm<br><b>Seas:</b><br>Calm<br><b>Disposal location</b><br>Gateway (Upland) | <b>Sample Point</b>   | <b>Depth (ft)</b>  | <b>Time</b> | <b>X-Coordinate</b>  | <b>Y-Coordinate</b> | <b>Turbidity (NTU)</b>      | <b>DO (Mg/L)</b>     |
|  | DSPP-1 (11)   | 20.0   | 9:27:07     | 7623864.1            | 735591.7            | 2.3                         | NA                   |
|  | DSPP-2 (12)   | 20.1   | 9:32:30     | 7623806.5            | 735764.4            | NA                          | 12.6                 |
|  | DSPP-3 (13)   | 20.1   | 9:38:32     | 7623512.1            | 736192.8            | 2.8                         | NA                   |
|  |   | <b>Retest @ point of exceedance</b>                              |             |                      |                     |                             |                      |
|  |   | All coordinates are Oregon State Plane North 3601; Datum: NAD 83 |             |                      |                     |                             |                      |
| <b>Remarks:</b>  |   |  |             | <b>Action Taken:</b> |                     |                             |                      |
| No exceedances.  |   |  |             | None required.       |                     |                             |                      |
| Sample point numbers in parenthesis correspond with YSI 650 MDS logged data.   |   |  |             |                      |                     |                             |                      |
| <b>Sample Point Key</b>  | <b>All Tests Conducted With YSI 6600</b>                                      |  |             |                      |                     | <b>Turbidity Compliance</b> | <b>DO Compliance</b> |
| DSPP-1   | 100' up current (background) within 600' channel                              |  |             |                      |                     | N/A                         | N/A                  |
| DSPP-2   | 100' down current from the discharge  |  |             |                      |                     | Not Required                | WA                   |
| DSPP-3   | 600' down current, 150' lateral to the discharge                              |  |             |                      |                     | WA                          | Not Required         |
| DSPPT  | Indicates additional testing at the point of exceedance                       |  |             |                      |                     |                             |                      |
| Rx   | Indicates a Re-Test where (x) is the Re-Test number for that particular point |  |             |                      |                     |                             |                      |

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| <b>DREDGE OREGON</b>  |   | Contract Number: W9127N-06-C-CRCI                                |             |                      |                     |                             |                      |
|---|---|--|-------------|----------------------|---------------------|-----------------------------|----------------------|
| <b>Project Name/Location:</b><br>Columbia River Channel Improvement, RM 101+10 to 100+40<br><b>12/14/2005</b>   |   |  |             |                      |                     |                             |                      |
| <b>Dredge</b><br>Oregon<br><b>Tidal Stage</b><br>Ebb<br><br><b>Weather:</b><br>Clear and cold<br><b>Wind:</b><br>Calm<br><b>Seas:</b><br>Calm<br><b>Disposal location</b><br>Gateway (Upland) | <b>Sample Point</b>   | <b>Depth (ft)</b>  | <b>Time</b> | <b>X-Coordinate</b>  | <b>Y-Coordinate</b> | <b>Turbidity (NTU)</b>      | <b>DO (Mg/L)</b>     |
|   | DSPP-1 (11)   | 20.0   | 11:27:17    | 7623889.3            | 735512.9            | 2.4                         | NA                   |
|   | DSPP-2 (12)   | 20.1   | 11:32:50    | 7623797.3            | 735780.0            | NA                          | 13.3                 |
|   | DSPP-3 (13)   | 20.2   | 11:36:44    | 7623527.0            | 736166.2            | 4.5                         | NA                   |
|   |   | <b>Retest @ point of exceedance</b>                              |             |                      |                     |                             |                      |
|   |   | All coordinates are Oregon State Plane North 3601; Datum: NAD 83 |             |                      |                     |                             |                      |
| <b>Remarks:</b>   |   |  |             | <b>Action Taken:</b> |                     |                             |                      |
| No exceedances.   |   |  |             | None required.       |                     |                             |                      |
| Sample point numbers in parenthesis correspond with YSI 650 MDS logged data.  |   |  |             |                      |                     |                             |                      |
| <b>Sample Point Key</b>   | <b>All Tests Conducted With YSI 6600</b>                                      |  |             |                      |                     | <b>Turbidity Compliance</b> | <b>DO Compliance</b> |
| DSPP-1  | 100' up current (background) within 600' channel                              |  |             |                      |                     | N/A                         | N/A                  |
| DSPP-2  | 100' down current from the discharge  |  |             |                      |                     | Not Required                | WA                   |
| DSPP-3  | 600' down current, 150' lateral to the discharge                              |  |             |                      |                     | WA                          | Not Required         |
| DSPPT   | Indicates additional testing at the point of exceedance                       |  |             |                      |                     |                             |                      |
| Rx  | Indicates a Re-Test where (x) is the Re-Test number for that particular point |  |             |                      |                     |                             |                      |

COLUMBIA RIVER CHANNEL IMPROVEMENTS - DREDGING

| DREDGE OREGON   |   | Contract Number: W9127N-06-C-CRCI |             |                      |                     |                             |                      |
|---|---|-----------------------------------|-------------|----------------------|---------------------|-----------------------------|----------------------|
| Project Name/Location:<br>Columbia River Channel Improvement, RM 101+10 to 100+40<br>12/14/2005   |   |                                   |             |                      |                     |                             |                      |
| <b>Dredge</b><br>Oregon<br><b>Tidal Stage</b><br>Slack<br><br><b>Weather:</b><br>attered clouds, clear, and<br><b>Wind:</b><br>Calm<br><b>Seas:</b><br>Calm<br><b>Disposal location</b><br>Gateway (Upland) | <b>Sample Point</b>   | <b>Depth (ft)</b>                 | <b>Time</b> | <b>X-Coordinate</b>  | <b>Y-Coordinate</b> | <b>Turbidity (NTU)</b>      | <b>DO (Mg/L)</b>     |
|   | DSPP-1 (11)   | 20.0                              | 13:27:08    | 7623896.7            | 735493.4            | 2.2                         | NA                   |
|   | DSPP-2 (12)   | 20.0                              | 13:32:14    | 7623809.0            | 735779.6            | NA                          | 13.0                 |
|   | DSPP-3 (13)   | 20.2                              | 13:35:32    | 7623507.9            | 736179.1            | 3                           | NA                   |
| <b>Retest @ point of exceedance</b>   |   |                                   |             |                      |                     |                             |                      |
| All coordinates are Oregon State Plane North 3601; Datum: NAD 83  |   |                                   |             |                      |                     |                             |                      |
| <b>Remarks:</b>   |   |                                   |             | <b>Action Taken:</b> |                     |                             |                      |
| No exceedances.   |   |                                   |             | None required.       |                     |                             |                      |
| Sample point numbers in parenthesis correspond with YSI 650 MDS logged data.  |   |                                   |             |                      |                     |                             |                      |
| <b>Sample Point Key</b>   | <b>All Tests Conducted With YSI 6600</b>                                      |                                   |             |                      |                     | <b>Turbidity Compliance</b> | <b>DO Compliance</b> |
| DSPP-1  | 100' up current (background) within 600' channel                              |                                   |             |                      |                     | N/A                         | N/A                  |
| DSPP-2  | 100' down current from the discharge  |                                   |             |                      |                     | Not Required                | WA                   |
| DSPP-3  | 600' down current, 150' lateral to the discharge                              |                                   |             |                      |                     | WA                          | Not Required         |
| DSPPT   | Indicates additional testing at the point of exceedance                       |                                   |             |                      |                     |                             |                      |
| Rx  | Indicates a Re-Test where (x) is the Re-Test number for that particular point |                                   |             |                      |                     |                             |                      |

COLUMBIA RIVER CHANNEL IMPROVEMENTS - DREDGING

| <b>DREDGE OREGON</b>  |   |            |          | Contract Number: W9127N-06-C-CRCI |              |                      |               |
|---|---|------------|----------|-----------------------------------|--------------|----------------------|---------------|
| <b>Project Name/Location:</b><br>Columbia River Channel Improvement, RM 101+10 to 100+40<br><b>12/14/2005</b>   |   |            |          |                                   |              |                      |               |
| <b>Dredge</b><br>Oregon<br><b>Tidal Stage</b><br>Slack<br><br><b>Weather:</b><br>Clear and cold<br><b>Wind:</b><br>5kts<br><b>Seas:</b><br>Calm<br><br><b>Disposal location</b><br>Gateway (Upland) | Sample Point  | Depth (ft) | Time     | X-Coordinate                      | Y-Coordinate | Turbidity (NTU)      | DO (Mg/L)     |
|   | DSPP-1 (11)   | 19.9       | 15:27:00 | 7623831.6                         | 735471.5     | 2.8                  | NA            |
|   | DSPP-2 (12)   | 19.8       | 15:32:58 | 7623790.9                         | 735763.4     | NA                   | 12.8          |
|   | DSPP-3 (13)   | 20.1       | 15:36:38 | 7623537.2                         | 736175.4     | 2.1                  | NA            |
| <b>Retest @ point of exceedance</b>   |   |            |          |                                   |              |                      |               |
| All coordinates are Oregon State Plane North 3601; Datum: NAD 83  |   |            |          |                                   |              |                      |               |
| <b>Remarks:</b>   |   |            |          | <b>Action Taken:</b>              |              |                      |               |
| No exceedances.   |   |            |          | None required.                    |              |                      |               |
| Sample point numbers in parenthesis correspond with YSI 650 MDS logged data.  |   |            |          |                                   |              |                      |               |
| Sample Point Key  | All Tests Conducted With YSI 6600   |            |          |                                   |              | Turbidity Compliance | DO Compliance |
| DSPP-1  | 100' up current (background) within 600' channel                              |            |          |                                   |              | N/A                  | N/A           |
| DSPP-2  | 100' down current from the discharge  |            |          |                                   |              | Not Required         | WA            |
| DSPP-3  | 600' down current, 150' lateral to the discharge                              |            |          |                                   |              | WA                   | Not Required  |
| DSPPT   | Indicates additional testing at the point of exceedance                       |            |          |                                   |              |                      |               |
| Rx  | Indicates a Re-Test where (x) is the Re-Test number for that particular point |            |          |                                   |              |                      |               |

**Dredge Sugar Island**

Project Name/Location:

Contract Number: W9127N-05-C-0012

**Columbia River Channel Improvement - RM 95+00-104+20.**

Date: 12/14/2005

| Disposal<br>Load Number<br>1608<br>Tidal Stage<br>Ebb<br>Dredge State:<br>Split Hull<br>Weather:<br>Clear<br>Wind:<br>0-5 kts<br>Seas:<br>0-1'<br>Disposal location<br>Columbia River RM 101 | Sample Point | Depth (ft) | Time    | X Coordinate | Y Coordinate | Turbidity (NTU) | DO (Mg/L) |
|--|--------------|------------|---------|--------------|--------------|-----------------|-----------|
|  | DSP-1        | 20.8       | 7:55:00 | 7622989.93   | 734939.80    | 1.3             |           |
|  | DSP-2        | 21.0       | 8:09:51 | 7623111.42   | 734711.45    | 14.5            | 15.1      |
|  | DSP-2R1      | 20.8       | 8:09:55 | 7623111.42   | 734711.45    | 10.6            | 15.3      |
|  | DSP-3        | 20.2       | 8:11:15 | 7623077.00   | 734548.27    | 10.0            |           |
|  | DSP-3R1      | 20.6       | 8:11:18 | 7623077.00   | 734548.27    | 8.0             |           |
|  | DSP-4        | 20.3       | 8:12:44 | 7622783.26   | 735170.53    | 12.0            |           |
|  | DSP-4R1      | 20.3       | 8:12:47 | 7622783.26   | 735170.53    | 11.5            |           |

| 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 plume,<br>on port side. | Re-test DSP-3R1 was taken.                                  |
|  | The disposal ended and the dredge moved away from the 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 |                      |               |

Dredge Sugar Island

Project Name/Location:

Contract Number: W9127N-05-C-0012

**Columbia River Channel Improvement - RM 95+00-104+20.**

Date: 12/14/2005

| <p><b>Dredging</b></p> <p><u>Load Number</u><br/>1609</p> <p><u>Tidal Stage</u><br/>Ebb</p> <p><u>Dredge State:</u><br/>Overflow through skimmers only</p> <p><u>Weather:</u><br/>Clear</p> <p><u>Wind:</u><br/>0-5 kts</p> <p><u>Seas:</u><br/>0-1'</p> <p><u>Disposal location</u><br/>Columbia River RM 101</p> | Sample Point | Depth (ft) | Time    | X Coordinate | Y Coordinate | Turbidity (NTU) | DO (Mg/L) |
|--|--------------|------------|---------|--------------|--------------|-----------------|-----------|
|  | DR-1         | 20.5       | 8:51:31 | 7622951.31   | 755580.73    | 2.0             |           |
|  | DR-2         | 20.0       | 8:52:32 | 7623154.73   | 756000.59    | 14.2            | 15.0      |
|  | DR-2R1       | 20.2       | 8:52:35 | 7623154.73   | 756000.59    | 11.4            | 15.0      |
|  | DR-4         | 20.9       | 8:53:24 | 7623335.35   | 756518.36    | 16.8            |           |
|  | DR-4R1       | 20.9       | 8:53:28 | 7623339.77   | 756524.32    | 16.2            |           |
|  | DR-3         | 20.3       | 8:55:53 | 7623431.98   | 755257.19    | 10.4            |           |
|  | DR-3R1       | 20.5       | 8:55:56 | 7623432.15   | 755263.26    | 10.0            |           |

| 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 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                      | OR<br>WA<br>WA       | OR, WA<br>Not Required<br>Not Required |
| DR-2             | 100' Down Current   |                      |  |
| DR-3             | 300' Radially from point of dredge (Port or Starboard)                        |                      |  |
| DR-4             | 900' Down Current from point of dredging                                      |                      |  |
| Rx               | Indicates a Re-Test where (x) is the Re-Test number for that particular point |                      |  |