

Project Name/Location:

Contract Number: W9127N-05-C-0012

Columbia River Channel Improvement - RM 16+20 to 17+30.

Date: 11/13/2005

Dredging <u>Load Number</u> 1263 <u>Tidal Stage</u> Flood <u>Dredge State:</u> Overflow through skimmers only <u>Weather:</u> Overcast <u>Wind:</u> 10-15 kts <u>Seas:</u> 1-2' <u>Disposal location</u> Columbia River RM 17.5 & 18.8	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
	DR-1	18.9	7:18:17	7367624.24	943182.48	5.2	
	DR-2	21.5	7:19:21	7368059.31	943079.55	19.2	12.1
	DR-2R1	21.5	7:19:23	7368063.52	943079.38	18.7	12.2
	DR-4	20.0	7:20:41	7368644.92	943250.34	10.9	
	DR-4R1	19.9	7:20:44	7368653.35	943249.99	11.0	
	DR-3	21.2	7:23:53	7367345.45	943285.11	4.8	
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 taken out of plume on starboard side.							
				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 WA WA	OR, WA Not Required 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						

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Columbia River Channel Improvement - RM 16+20 to 17+30.

Date: 11/13/2005

Disposal Load Number 1263 Tidal Stage Flood Dredge State: Split Hull Weather: Overcast Wind: 10-15 kts Seas: 0-1' Disposal location Columbia River RM 17.5 & 18.8	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
	DSP-1	18.8	7:39:57	7373523.96	945144.67	5.2	
	DSP-2	20.1	7:44:08	7374105.99	945334.00	25.1	12.2
	DSP-2R1	19.2	7:44:13	7374118.88	945339.56	18.0	12.2
	DSP-3	19.8	7:45:22	7374804.85	946114.79	5.2	
	DSP-4	22.2	7:47:22	7374940.08	945908.56	6.5	
	DSP-4R1	20.6	7:47:26	7374944.30	945908.39	6.6	

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 taken out of plume on port side.	
	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	OR WA WA	OR, WA Not Required Not Required
DSP-2	100' Down Current		
DSP-3	150' Radially from point of dredge (Port or Starboard)		
DSP-4	900' Down Current from point of dredging		
Rx	Indicates a Re-Test where (x) is the Re-Test number for that particular point		

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Dredging	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
<u>Load Number</u> 1264	DR-1	20.8	8:20:21	7368926.64	943944.53	5.8	
<u>Tidal Stage</u> Flood	DR-2	23.3	8:21:48	7369637.72	944085.90	12.4	12.2
<u>Dredge State:</u> Overflow through skimmers only	DR-2R1	23.6	8:21:51	7369650.61	944091.45	11.3	12.1
<u>Weather:</u> Light Rain	DR-4	20.5	8:23:15	7370224.77	944293.16	25.9	
<u>Wind:</u> 10-15 kts	DR-4R1	20.3	8:23:18	7370233.20	944292.82	25.4	
<u>Seas:</u> 1-3'	DR-3	20.2	8:26:20	7369000.35	943266.26	20.6	
<u>Disposal location</u> Columbia River RM 17.5 & 18.8	DR-3R1	23.5	8:26:25	7369004.82	943272.16	16.2	

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 WA WA	OR, WA Not Required 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		

Project Name/Location:

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Columbia River Channel Improvement - RM 16+20 to 17+30.

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Dredging <u>Load Number</u> 1265 <u>Tidal Stage</u> Flood <u>Dredge State:</u> Overflow through skimmers only <u>Weather:</u> Overcast <u>Wind:</u> 10-15 kts <u>Seas:</u> 0-1' <u>Disposal location</u> Columbia River RM 17.5 & 18.8	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
	DR-1	19.7	10:01:55	7366062.06	942577.13	8.5	
	DR-2	21.0	10:08:26	7369349.80	943653.53	9.9	12.0
	DR-2R1	20.9	10:08:29	7369358.23	943653.19	10.1	12.0
	DR-4	20.5	10:09:44	7369738.45	943759.37	17.8	
	DR-4R1	20.7	10:09:47	7369742.67	943759.20	17.4	
	DR-3	20.9	10:12:37	7368573.24	943253.26	17.9	
	DR-3R1	20.6	10:12:40	7368573.24	943253.26	16.2	
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.			
Dredge digging with starboard draghead only.				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 WA WA	OR, WA Not Required 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						

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Columbia River Channel Improvement - RM 16+20 to 17+30.

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Dredging	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
Load Number 1266	DR-1	20.9	11:51:25	7369310.76	942176.85	4.7	
Tidal Stage Ebb	DR-2	20.5	11:54:14	7365563.92	941861.41	19.3	10.1
Dredge State: Overflow through skimmers only	DR-2R1	21.1	11:54:17	7365563.92	941861.41	18.7	10.1
Weather: Overcast	DR-4	20.6	11:56:33	7365608.07	941804.85	21.6	
Wind: 5-10 kts	DR-4R1	20.2	11:56:37	7365608.07	941804.85	16.4	
Seas: 1-2'	DR-3	21.2	11:58:45	7367505.69	942347.80	4.3	
Disposal location Columbia River RM 17.5 & 18.8							

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 taken out of plume on starboard side.	
	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 WA WA	OR, WA Not Required 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		

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Columbia River Channel Improvement - RM 16+20 to 17+30.

Date: 11/13/2005

Disposal Load Number 1266 Tidal Stage Ebb Dredge State: Split Hull Weather: Overcast Wind: 5-10 kts Seas: 1-2' Disposal location Columbia River RM 17.5 & 18.8	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
	DSP-1	19.7	12:48:38	7375180.00	946306.44	10.6	
	DSP-2	20.5	12:55:12	7373827.41	945546.04	22.1	9.9
	DSP-2R1	20.3	12:55:16	7373823.19	945546.21	20.6	10.0
	DSP-3	20.7	12:56:37	7374387.54	945969.87	23.9	
	DSP-3R1	20.1	12:56:40	7374387.54	945969.87	23.3	
	DSP-4	19.2	12:58:21	7373615.37	945524.22	17.8	
	DSP-4R1	19.6	12:58:25	7373611.15	945524.39	15.0	

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	Re-test DSP-3R1 was taken.
on port side.	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	OR WA WA	OR, WA Not Required Not Required
DSP-2	100' Down Current		
DSP-3	150' Radially from point of dredge (Port or Starboard)		
DSP-4	900' Down Current from point of dredging		
Rx	Indicates a Re-Test where (x) is the Re-Test number for that particular point		

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Columbia River Channel Improvement - RM 16+20 to 17+30.

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<p>Dredging <u>Load Number</u> 1268 <u>Tidal Stage</u> Ebb <u>Dredge State:</u> Overflow through skimmers only <u>Weather:</u> Light Rain <u>Wind:</u> 5-10 kts <u>Seas:</u> 1-2' <u>Disposal location</u> Columbia River RM 17.5 & 18.8</p>	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
	DR-1	20.7	16:26:15	7369015.66	944159.91	8.2	
	DR-3	19.9	16:28:27	7368060.05	943097.77	11.2	
	DR-3R1	20.0	16:28:30	7368047.15	943092.22	11.2	
	DR-2	20.0	16:29:46	7367835.32	943386.78	19.4	10.7
	DR-2R1	20.2	16:29:51	7367826.64	943381.05	18.6	10.6
	DR-4	20.4	16:31:13	7366846.14	942849.25	23.5	
	DR-4R1	20.5	16:31:17	7366846.14	942849.25	19.5	

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 starboard side.	Re-test DR-3R1 was taken.
Tests not completed two hours after previous tests due to a temporary cease in dredging for repairs.	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 WA WA	OR, WA Not Required 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		

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Columbia River Channel Improvement - RM 16+20 to 17+30.

Date: 11/13/2005

Dredging <u>Load Number</u> 1267 <u>Tidal Stage</u> Ebb <u>Dredge State:</u> Overflow through skimmers only <u>Weather:</u> Overcast <u>Wind:</u> 5-10 kts <u>Seas:</u> 1-2' <u>Disposal location</u> Columbia River RM 17.5 & 18.8	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
	DR-1	20.7	13:45:01	7368834.68	943035.76	4.7	
	DR-3	19.8	13:47:19	7367574.90	942490.98	5.9	
	DR-3R1	19.6	13:47:24	7367562.00	942485.42	5.3	
	DR-2	19.4	13:49:27	7367199.35	943017.32	33.8	9.9
	DR-2R1	19.2	13:49:31	7367186.46	943011.77	36.4	10.7
	DR-4	19.3	13:51:31	7366265.46	942593.15	5.2	
	DR-4R1	19.5	13:51:35	7366256.78	942587.42	5.2	

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 starboard 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 WA WA	OR, WA Not Required 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		