

PROJECT COMPLETION REPORT

PROJECT NAME Delta Wide Crevasses

CWPPRA/STATE PROJECT NO. MR-09

Report Date: June 28, 2005 **BY:** Hydro Consultants, Inc.

1. DNR Project Managers/Engineer/Construction Contractor :

DNR Project Manager	George Boddie	Telephone	504-280-4067
DNR Construction Project Manager	Thomas Bernard	Telephone	504-280-4071
DNR Monitoring Manager	John Troutman	Telephone	504-280-4068
Federal Agency Project Manager	Cheryl Brodnax	Telephone	225-578-7923
Coastal Dredging Co Inc.	Tommy Kilbride	Telephone	985-641-6243

2. Location and description of project.

The project area is located in Plaquemines Parish to the southeast of Venice, Louisiana on the active Mississippi River Delta within the Pass-A-Loutre Wildlife Management Area (PALWMA). The PALWMA covers 66,000 acres between Pass-A-Loutre and South Pass and is owned and managed by Louisiana Department of Wildlife and Fisheries. The project consisted of maintaining existing crevasses No. 9, 11, 12 and the construction of crevasses NC-1 and NC-3. Crevasse No. 81, located on Baptiste Collette is included in this project but is not within PALWMA.

The project utilizes the major process that forms subaerial land in the lower Mississippi River Delta, the formation of crevasses. Crevasses are breaks in the levee that allow overbank deposition of sediments to occur in adjacent inter-distributary receiving bays. The sediment carried in the water from newly created crevasses quickly settles out of the water column and allows subaerial land to be created. Future growth of the newly created marsh occurs through sediment trapping action of the emergent vegetation.

3. Final, as-built features.

Crevasse 9 is dredged to an average depth of -8 ft. NAVD 88 with an average width of 100 ft., approximately 25 ft. wider than project plans. Hydraulic fill was placed within project limits and did not exceed +3 NAVD 88. Crevasse NC-1 is dredged to an average depth of -8 ft. NAVD with an average width of 125 ft., approximately 25 ft. wider than project plans. The overall length was reduced to 875 ft. to avoid an existing pipeline. Hydraulic fill was placed within project limits and did not exceed +3 NAVD 88. Alignment of Crevasse 11 is shifted 25 ft. southerly to avoid existing vegetation, in accordance with Field Change No. 1. Crevasse 11 is dredged to an average depth of -8 ft. NAVD 88 with an average width of 100 ft. in accordance with project plans. Alignment of Crevasse 12 is shifted approximately 30 ft. southerly for the first 600 ft. to avoid existing vegetation and to follow more closely with the existing cut, in accordance with Field Change No. 2. Crevasse 12 is dredged to an average depth of -8 ft. NAVD 88 with an average width of 75 ft. in accordance with project plans. Crevasse NC-3 is dredged to an average depth of -8 ft. NAVD 88 with an average width of 100 ft. in accordance with project plans. Hydraulic fill was placed within project limits and did not exceed +3 NAVD 88. Crevasse 81 is dredged to an average depth of -8 ft. NAVD 88 with an average width of 100 ft. in accordance with project plans. The alignment was shifted 25 ft. westerly to avoid newly installed power lines, in accordance with Field Change No. 3. Hydraulic fill was placed within project limits and did not exceed +3 NAVD 88. Additional information regarding revised crevasse alignments is available on the attached project plans.

4. Items of Work Base Bid

Item No.	Work	Unit	Est. Amount	Final Quant.	Bid Unit Price	Final Amount	% Over /Under
1	Mobilization and Demobilization	L.S.	1	1	\$110,000.00	\$110,000.00	0 %
2	Hydraulically Dredge Crevasses (9, NC-1, 11, 12, NC-3)	Cu. Yd.	241,739	244,441.61	\$2.35	\$574,437.78	+1%
3	Clearing and Grubbing Sites NC-1 and NC-3	L.S.	1	1	\$20,000	\$20,000.00	0%

Items of Work Alternate No. 1

4	Hydraulically Dredge Crevasse 81	Cu. Yd.	45,188	38,804	\$3.25	\$126,113.00	-14%
5	Clearing and Grubbing Site 81	L.S.	1	1	\$10,000	\$10,000	0%

5. Construction cost.

Original construction contract	\$ 854,947.65
Change 4	\$ -14,396.87
Over/Under runs	
Final construction contract	\$ 840,550.78

6. Major equipment used.

- Dredge Gazap - M.V. Gazap 750 hp. 14" x 12"
- Tender Boat - M.V. Hunter
- Tender Boat - M.V. Top Cat 210 hp.
- Tool Barge - Preston 26 x 60
- Quarter Barge - 30 x 80 (6 bunk)
- Marsh Excavator- Wilco 3200 Series

7. Discuss construction sequences and activities, problems encountered, solutions to problems, etc.

The project began with the contractor assembling and placing discharge pipe within the hydraulic fill area of Crevasse 9. Dredging was delayed for three days due to Tropical Storm Mathew. Once dredging began the contractor dredged across the entire 75 ft. design width of the crevasse. This resulted in an overall width of 100 ft. due to sloughing on the sidewalls. Crevasse 9 was completed in 20 days. The contractor then moved to Crevasse NC-1, which is downstream of Crevasse 9.

The contractor employed the same dredging procedure on Crevasse NC-1 with similar results, approximately 25 ft. additional width due to sloughing sidewalls. The contractor was advised to make corrections to achieve design width for all remaining crevasses. The contractor complied by reducing the cut approximately 12 ft. on either side of centerline. Crevasse NC-1 was completed in 21 days. The contractor then moved to Crevasse 11, which is downstream of Crevasse NC-1.

Alignment of Crevasse 11 was shifted 25' westward to avoid impacting existing vegetation. Dredging this crevasse was a challenge from the beginning. Excessive debris and submerged logs severely impeded progress. The marsh excavator was used to attempt to remove obstructions but was only marginally effective. Crevasse 11 was completed in 43 days. The contractor then moved to Crevasse 12, which is downstream of Crevasse 11.

Louisiana Wildlife and Fisheries requested and was granted a change in alignment of Crevasse 12 in order to avoid impacting existing vegetation and more closely follow the existing channel. The change affected approximately the initial 600 ft.. A transition was made to the original plan alignment beyond 600 ft.. Dredging progressed smoothly. Crevasse 12 was completed in 15 days. The contractor moved to Crevasse NC-3 located on South Pass.

The contractor used a marsh excavator to remove material at the proposed mouth of Crevasse NC-3 due to the depth of South Pass and the length of the spuds coupled with a strong current. Once outside the pass, dredging progressed well. Upon reaching the end of the crevasse the dredge turned around and attempted to dredge the mouth of the crevasse. A very strong current prevented the dredge from completing the mouth of the crevasse. Crevasse NC-1 was completed in 14 days. The contractor move to Crevasse 81, located at Batiste Collette.

Crevasse 81 alignment was revised to provide clearance from an existing Entergy power pole. The contractor contacted Entergy to determine vertical clearance between an existing power line and the dredge spuds. It was determined that the spuds had to be shortened to provide the necessary clearance. No unforeseen problems were encountered. Crevasse 81 was completed in 27 days.

8. Construction change orders and field changes.

- Change Order 1, 2 and 3 are contract time extensions.(see attached below)
- Change Order 4 adjusted final contract price and contract time. (see attached below)
- Field Change 1 addresses change to Crevasse 11 alignment.
- Field Change 2 addresses change to Crevasse 12 alignment.
- Field Change 3 addresses change to Crevasse 81 alignment.

CHANGE ORDER NO. 1
52 DAY TIME EXTENSION

MEMORANDUM

December 20, 2004

To: Chet Fruge, Manager, Project Support Section

Through: David Burkholder, Engineer Manager

Through: George Boddie, Engineer Supervisor

From: Tom Bernard, Construction Engineer

Subject: Time Extension No. 1, Delta Wide Crevasses (MR-09)
File Number K 25635 DL, Purchase Order Number 3748885

In a letter dated June 25, 2004, the Director of State Purchasing notified Coastal Dredging Co. Inc. that the Notice-to-Proceed for their contract was July 9, 2004. The time given in that letter was 160 calendar days, which made the completion date December 16, 2004. However; those 160 days were only for the part of the contract covered by the Base Bid and did not reflect the time for the Additive Alternate #1 Bid which was also part of the Contract Award. Therefore; LDNR New Orleans Field Office, using the bid quantities for the Additive Alternate #1, has calculated that the contractor is due 27 additional days, which increases the total contract time to 187 days. This time increase makes Coastal's revised completion date for the Base Bid plus the Additive Alternate #1, January 12, 2005.

In addition; as of December 14, 2004, LDNR's records show that Coastal is due 10 days over and above the anticipated severe weather days set forth in Para. GP-38 of the specifications. Our records also agree with Coastal's request of December 16, 2004, that they be granted an additional 15 days for reasons beyond their control, namely, unusual amounts of debris (buried trees and stumps) that severely impaired their dredging effort, Para. GP-37 of the specifications. These additional 25 days extends the new completion date to February 8, 2005.

If you have any questions regarding this information, please call me and we can discuss them. Off. 504-280-4071, Cel. 504-239-3951.

Cc: Contract File

CHANGE ORDER NO. 2
27 DAY TIME EXTENSION

MEMORANDUM

February 9, 2005

To: Chet Fruge, Manager, Project Support Section

Through: David Burkholder, Engineer Manager

Through: George Boddie, Engineer Supervisor

From: Tom Bernard, Construction Engineer

**Subject: Time Extension No. 2, Delta Wide Crevasses (MR-09)
File Number K 25635 DL, Purchase Order Number 3748885**

Please process this request to grant Coastal Dredging Co. Inc. an additional 27 days for the above reference contract. The reasons for this additional time is explained in the following paragraph.

During the period from December 15, 2004 through January 31, 2005, LDNR's records show that Coastal is due 2 days over and above the anticipated severe weather days set forth in Para. GP-38 of the specifications. Our records also agree with Coastal's request of February 7, 2005, that they be granted an additional 25 days for reasons beyond their control, namely, unusual amounts of debris (buried trees and stumps) that severely impaired their dredging effort, Para. GP-37 of the specifications. These additional 27 days extends the new completion date to March 7, 2005.

If you have any questions regarding this information, please call me and we can discuss them. Off. 504-280-4071, Cel. 504-239-3951.

Cc: Contract File

CHANGE ORDER NO. 3
10 DAY TIME EXTENSION

MEMORANDUM

March 17, 2005

To: Chet Fruge, Manager, Project Support Section

Through: David Burkholder, Engineer Manager

Through: George Boddie, Engineer Supervisor

From: Tom Bernard, Construction Engineer

**Subject: Time Extension No. 3, Delta Wide Crevasses (MR-09)
File Number K 25635 DL, Purchase Order Number 3748885**

Please process this request to grant Coastal Dredging Co. Inc. an additional 10 days for the above reference contract. The reasons for this additional time is explained in the following paragraph.

In accordance with paragraph GP-37 of the specifications, the contractor submitted a written request dated March 17, 2005 for an additional 10 days resulting from Field Change Directive No. 2, dated February 22, 2005. That Field Change modified the alignment of Crevasse No. 91, as designed, to provide an additional 25 feet horizontal clearance from the existing power pole.. The new centerline geographic coordinates were recalculated and the new centerline was surveyed in for the dredge. This change did not cause an increase in the contract quantities; however, LDNR agrees that it did impact the time for completing the work. These additional 10 days extends the new completion date to March 17, 2005.

If you have any questions regarding this information, please call me. Off. 504-280-4071, Cel. 504-239-3951.

Cc: Contract File

CHANGE ORDER NO. 4 & FINAL

PROJECT:

Modification of the Delta Wide Crevasses
(MR-09)

OWNER:

Louisiana Department of Natural
Resources

CONTRACTOR:

Coastal Dredging Company, Inc.
P.O. Box 2968, Slidell, La. 70459

CONTRACT FOR:

Modification of the Delta Wide Crevasses
Project (MR-09)

DATE OF ISSUANCE:**OWNER'S PROJECT NO.**

DNR (MR-09)

ENGINEER:

La. Department of Natural Resources
617 North 3rd St., Baton Rouge, La. 70802

ENGINEER'S PROJECT NO.

State Project No. MR-09

You are directed to make the following changes to the Contract Documents:

Description: Refer to Change Order No. 4 & Final Attached

Purpose of Change Order: To make corrections to the estimated contract quantities.

CHANGE IN CONTRACT PRICE:

Original Contract Price

\$ 854,947.65

Previous Change Orders

\$ 0.00

Contract Price Prior to this Change Order

\$ 854,947.65

Net Decrease of this Change Order

\$ -14,396.87

Total Contract Price to Date

\$ 840,550.78

CHANGE IN CONTRACT TIME:

Original Contract Time

160 Calendar Days

Net Change from previous Change Orders

89 Days

Contract Time Prior to this Change Order

249 Calendar Days

Net Increase of this Change Order

0 Days

Total Contract Time to Date

249 Days

RECOMMENDED:

By: Tom Bernard

Engr.

Date: April 5, 2005

APPROVED:

By: _____ DNR

Date: _____

APPROVED:

By: Tommy Kilbride

Cont.

Date: April 9, 2005

APPROVED:

By: _____ DNR

Date: _____

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**Modification to the Delta Wide Crevasses (MR-09) Contract
Plaquemine Parish, Louisiana
Change Order No. 4 & Final**

Summary

The change order cost is a negative -\$14,396.87, and will decrease the total construction cost to \$840,550.78. The change is a result of variations in the estimated quantities. The contract time will not be affected due to this change.

The Change Order consists of adjusting the following Items:

ITEM	JUSTIFICATION	COST ADJUSTMENT
No. 2 Cubic Yards	This item included dredging of Crevasses (9, NC-1, 11, 12, NC-3). The estimated contract quantity was 241,739 cubic yards. The actual quantity dredged was 244,441.61 cubic yards for an increase of 2,702.61 c.y. @ \$2.35 per/c.y.	+\$6,351.13
No. 4 Cubic Yards	This item included dredging of Crevasse No. 81. The estimated contract quantity was 45,188 cubic yards. The actual quantity dredged was 38,804 cubic yards for a decrease of 6,384 cubic yards @ \$3.25 per cubic yard.	-\$20,748.00
	TOTAL ADJUSTED COSTS	-\$14,396.87

9. Safety and Accidents.

Overall poor safety practices were exhibited for the duration of the project. There was one lost time accident involving an oiler. This individual fell onto the discharge pipe and suffered a broken arm, which prevented him from working for the remainder of the project.

10. Significant Construction Dates:

Description	Date
Bid Opening	May 19, 2004
Construction Contract Award	June 25, 2004
Preconstruction Conference	July 6, 2004
Notice to Proceed	July 9, 2004
Mobilization	July 9, 2004
Construction Start	October 6, 2004
Construction Completion	March 10, 2005
Final Acceptance	March 17, 2005

SUPPLEMENT TO COMPLETION REPORT

CONSTRUCTION PLANS

List any items pertinent to the plans which caused problems, need clarification or changes for future contracts of this nature.

DESCRIPTION OF ITEM IN PLANS	RECOMMENDATIONS FOR FUTURE CONTRACTS
Sections depicting box cut on sheets 4-10 of 11.	The vertical walls as depicted cannot be achieved with a suction dredge.

CONSTRUCTION SPECIFICATIONS

List any items in the construction specifications which caused problems, need clarification or changes for future contracts of this nature.

DESCRIPTION OF ITEM IN SPECIFICATIONS	RECOMMENDATIONS FOR FUTURE CONTRACTS
N/a	
N/a	
N/a	



Photo 1. Crevasse 9 Before-Dredge aerial photo. Photo taken over Pass a Loutre facing southerly.

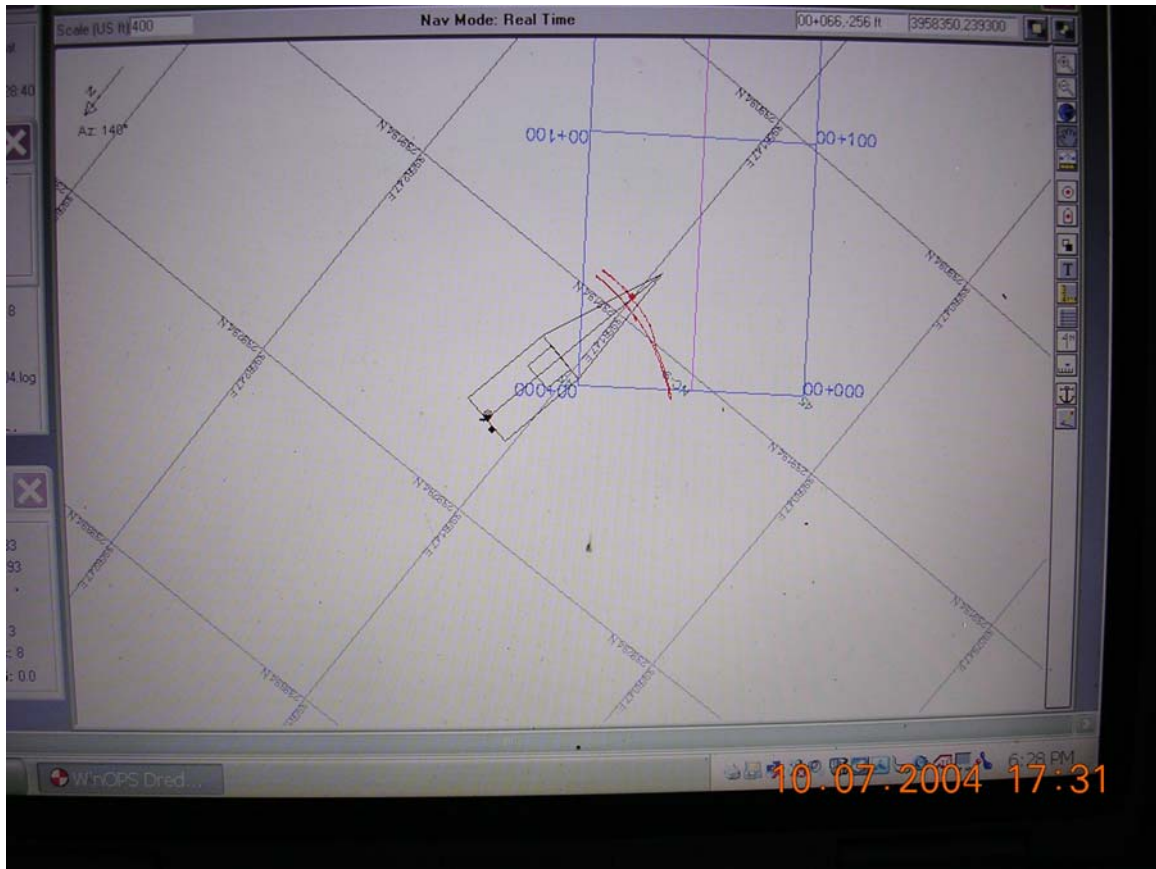


Photo 2. Screen shot of contractors GPS dredging software.



Photo 3 . The mouth of Crevasse 9, facing southerly.



Photo 4. Crevasse 9 at P.I. in alignment, facing southerly.



Photo 5. Crevasse 9, view toward the end of crevasse, facing southerly.



Photo 6. Crevasse 9 After-Dredge photo, taken over spoil area, facing Pass a Loutre in a northerly direction.



Photo 7. Crevasse 9 After-Dredge aerial photo, facing southerly.



Photo 8. Before-Dredge photo of proposed NC-1 area, taken near Dennis Pass, facing in a northeasterly direction.



Photo 9. Crevasse NC-1 After-Dredge photo, facing Pass a Loutre.



Photo 10. Photo showing spoil area (approx. center of photo) at Crevasse NC-1.



Photo 11. Before-Dredge photo of Crevasse 11 area, facing Pass A Loutre.



Photo 12. Before-Dredge photo taken over Pass a Loutre, facing southwesterly.



Photo 13. Before-Dredge photo taken on the east side of Crevasse 11.



Photo 14. The contractors progress was severely impeded due to frequent encounters with submerged logs and debris.



Photo 15. Logs and debris removed from Crevasse 11.



Photo 16. Marsh excavator removing submerged logs ahead of dredge.



Photo 17. Cutting cable from cutterhead.



Photo 18. Photo taken dredging operations at Crevasse 11.



Photo 19. Spoil area at Crevasse 11.



Photo 20. Sunrise on Crevasse 11.



Photo 21. Before-Dredge photo near the mouth of Crevasse 12, facing westerly.



Photo 22. First day of dredging at the mouth of Crevasse 12.



Photo 23. Proposed Before-Dredge Crevasse NC-3 area. Photo taken over South Pass facing approx. northeasterly direction



Photo 24. Crevasse NC-3 facing South Pass.



Photo 25. The mouth of Crevasse NC-3, facing easterly from South Pass. Very strong current was experienced for the duration of dredging operations at Crevasse NC-3.



Photo 26. Contractor laying out discharge pipe into Crevasse 81. Photo taken from Baptiste Collette, facing southerly.



Photo 27. Dredging at Crevasse 81 prior to power line crossing.



Photo 28. View on Crevasse 81 facing Baptiste Collette.



Photo 29. Nearing the end of Crevasse 81, facing southwesterly.