

ARDAMAN & ASSOCIATES, INC. PROGRESS MEETING REPORT FOR PINEY POINT GYPSUM STACK SYSTEM CLOSURE		File No.: 06-110A	Page 1 of 5
		Meeting Date: <u>7/12/07</u>	
		Report No: <u>121</u>	Report Date: <u>7/18/07</u>
Project Name:	CLOSURE CONSTRUCTION - OGS & NGS SLOPES, NGS-N RELIEF DITCH, SCP-S AND SCP-N		Project Address: 300 U.S. Highway 41 North Palmetto, Florida 34221 Manatee County
ATTENDEES: Ardaman: Rob Werner, John Cameron, Tony Deatherage FDEP: John Coates, Sam Zamani CDM: Dean Carter, Mike Cruz, Jack Partin, Jean Wilson, George Curry, Wayne Winner Comanco: Paul Moore Compass: Tom McSweeney, Tim Morrow, Jeremy Giles HRK: Ivan Nance			

COPY TO: FDEP: Phil Coram, Sam Zamani, John Coates
 Ardaman: Nadim Fuleihan, Rob Werner, Tom Leto, John Cameron, Tony Deatherage
 CDM: Steve Solters, Dean Carter, Michael Edgar, Michael Cruz, Dick Slovarp
 Comanco: Tom Topp, Paul Moore
 Compass: Tim Morrow, Jeremy Giles, Tom McSweeney, Mike Slovensky
 HRK: Art Roth, Ivan Nance

Next Meeting is Scheduled for Thursday, July 19, 2007
Construction/Engineering Meeting at 9:00 am

1.0 REVIEW MINUTES OF PREVIOUS MEETING

- No corrections were noted.

2.0 SAFETY

- No incidents were reported..

3.0 SUMMARY OF WORK PERFORMED

Compass

- Well Water usage - 205,000 gallons since last report.
- Water seed and sod areas; continued repairs to the NGS-S southeast corner slope
- Continued sod installation in the Phase I south stormwater ditch from station 100+00 to 119+50.
- Continued hauling soil from the Gulfstream II borrow area; total hauled as of 7/3/07 was reported 135,630 cy (estimated by truck count)
- Continued placing, grading and compacting soil cover on liner in the Phase II stormwater ditches.
- Continued placing, grading and compacting soil cover on liner in the NGS Relief Ditch.
- Started hauling soil cover in the SCP-S west compartment.
- Equipment: 6 dump trucks, 2 water trucks, 6 D6 dozers, 2 excavators, 1 motor grader, 3 club carts, 1 skidsteer bobcat, 1 fuel truck, 4 pumps - 23 personnel.

Comanco

- No work was performed since last report, except participation in the final inspection of the 40-mil liner installation in the SCP-S west compartment bottom and dikes south of contour elevation 10.65' on 7/5/07.

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CDM

- Continued desiccating sludge and grading and compacting the SCP-N.
- Continued hauling soil-gypsum mix materials to the excess material stockpile area.
- Continued excavating excess material at the SCP-N west perimeter dike.
- Continued installation of the SCP south seepage collection drain system.
- Continued removing gypsum sediment from the Phase II lined stormwater ditch.
- Pressure tested 12" HDPE outlet pipes for SCP-S inlet structures nos. 2 and 3.
- Equipment: 7 Terex dump trucks, 1 6-yard dump truck, 2 loaders, 4 D6 dozers, 1 D4 dozer, 1 motor grader, 5 excavators, 3 compactors, 2 water trucks, 1 4-inch double diaphragm pump, 3 6-inch service pumps, 1 2-inch pump, 1 12-inch fusing machine, 1 9-yard rock box - 29 personnel.

4.0 PROJECTED WORK FOR NEXT WEEK

Compass

- Water seeded and sodded areas; continue repairs on the NGS-S slopes. See 8.0 Technical Items - Miscellaneous for more.
- Continue hauling from the Gulfstream II borrow area and placing in the Phase II stormwater ditches.
- Continue hauling from the Gulfstream II borrow area and placing in the SCP-S west compartment. See 8.0 Technical Items - Miscellaneous for more.
- Continue sod installation in the Phase I south stormwater ditch.

Comanco

- No work is planned for next week; waiting on approved subgrade.

CDM

- Continue desiccating sludge, grading and compacting the SCP-N, and hauling to the excess material stockpile area.
- Continue installation of the SCP south seepage collection drain system.
- Continue removing gypsum sediment from the Phase II lined stormwater ditch.

5.0 SURVEY NOTES

- CDM/Edgemon provided an as-built survey by email on 7/10/07 for panel drain installation at the NGS Relief Ditch.
- CDM/Edgemon continued as-built surveys for the SCP phase II seepage collection drain.
- CDM/Edgemon continued as-built surveys on soil cover for the Phase I stormwater ditches.
- CDM/Edgemon were requested to survey the elevation of Piezometer PZ 102 which was repaired on 7/11/07.
- CDM agreed to have Edgemon perform a take-up survey of the excess material stockpile and remaining SCP-N cut.
- In addition to three optional gypsum placement area on the NGS-N for material to be cut in preparation for the NGS-N crest road closure work, CDM may also elect to place some material to correct surface gradients on the wide gypsum crest road between the NGS-S Cap and the NGS-S reservoir. At the 7/5/07 meeting, CDM offered to provide recent crest road elevation survey data for feasibility review.

6.0 PROJECT SCHEDULE

- ½ workday was lost to rain by Compass this reporting period.
- CDM updated and distributed the project schedule by email on 7/11/07. The schedule was also distributed and discussed at the meeting. It was noted that soil cover placement by Compass is essentially complete in the Phase I ditches and Relief Ditch, is making good progress in the Phase II ditches, and has started in the SCP. Also liner installation by Comanco is complete in the first section of the Phase II SCP (south of contour 10.65', subgrade

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preparation by CDM is making good progress in the SCP-N, and installation of the seepage collection drain by CDM has started. Liner is presently scheduled to resume on 7/24/07. It was requested that a task be inserted for cutting gypsum from NGS-N the crest roads, which is scheduled to start in about 2 weeks.

- Weekend work schedule: CDM and Compass on Saturday.

7.0 SHOP DRAWINGS and SUBMITTALS

All shop drawings and submittals should be submitted to Rob Werner (Ardaman) for approval, with transmittals only copied to John Cameron (Ardaman), Steve Solters (CDM) and Mike Cruz (CDM).

- A sample of woven geotextile sewn seam (2 rows of stitches) was re-submitted to Ardaman by CDM for use in the SCP phase II seepage collection system; CDM was advised at the meeting that the seam was satisfactory.

8.0 TECHNICAL ITEMS/CLARIFICATIONS AND QUALITY ASSURANCE

Updated drawing sets, dated 9/28/05, were distributed at the 9/29/05 meeting for the NGS-S Cap and NGS-N Relief Ditch and the Phase I Slope Closure. Revised Phase I Slope Closure drawing Nos. C-2, C-5, C-6, D-6, D-9, D-10, D-11), dated 2/15/06 (various revision nos.) were distributed at the 2/16/06 construction meeting to reflect changes related to lowering the OGS south stormwater ditch seepage collection drain. Electronic (ACAD) are available for download from Ardaman's ftp web site. Current drawings, dated 12/16/05, were distributed at the 12/16/05 meeting for Slope Cover Construction - OGS Ponds. Current drawings (including all detail drawings for structures, drains, etc.), dated 12/22/05 (various revision nos.), for the Phase II Slope Closure were delivered to CDM at the site on 12/23/05. Current drawings (including all detail drawings for structures, drains, etc.), dated 1/11/06 (various revision nos.), for the SCP-South Compartment Closure were distributed on 1/12/06, along with CD's containing ACAD files for all current for the SCP-South and Phase II slope Closure drawings. Revised SCP-South Compartment Closure Drawing No. D-6, dated 2/15/06 (Rev. 1), was distributed at the 2/16/06 construction meeting to reflect changes related to the lowered the OGS south seepage collection drain - an electronic version (ACAD) was emailed to CDM and Moretrench on 2/28/06. Regarding finish grades for the SCP-S Process Water Sump, a drawing was provided by Ardaman at the 7/6/06 construction meeting (and attached to meeting minutes) indicating optional design grades for the pond bottom area, which were adopted by CDM/Compass. Drawing Nos. C-1, C-3, C-4, D-1 and L-1 will be updated for the record to indicate the revised grading plan.

Regarding specifications for the OGS Slopes, Top Cap Areas and NGS-N Relief Ditch, pertinent NGS-S Reservoir, Phase II OGS Compartment Closure and ITN specification documents shall be used. Pertinent specification sections from the Phase II and ITN sources, along with specifications for HDPE panel drains and concrete erosion control mats, were issued in a preliminary specification document (Sections 24, 25, 26, 27, 28, 29 and 30, all revision 0, dated 7/6/05) on 7/7/05. Additional supplemental specifications for "Woven Geotextile" and "General Earthwork Using Soil" (Sections 31 and 32, both revision 1, dated 1/4/06) were distributed at the meeting on 1/5/06.

- Preliminary drawings and CD's were distributed at the 9/15/05 meeting for the NGS-S Soil Slope Cover Construction, C-1 through C-5 for Contractor's use in estimating take-off quantities.
- Drawings were distributed by Ardaman at the 7/20/06 meeting for additional panel drains required in the following areas: OGS Slope Pond, OGS-N Cap, OGS west and south ditches, and the NGS-S east ditch. Copies of these figures were attached to the electronic version of the meeting minutes.
- Final drawing sets for the SCP phase 2 closure, dated 11/8/08, including all detail and liner drawings, were issued for construction and distributed at the 11/16/06 (hard copies and CD's). Additional signed large drawings sets were distributed at the meeting. Supplemental drawings were distributed at the 3/29/07 meeting to clarify installation of the SCP-S seepage collection drain system between point nos. 14 and 23 (end of drain). It was noted at the 4/5/07 meeting that the east end of the drain may be shortened to accommodate installation of a cut-off wall that is being considered in conjunction with design discussions related to the proposed Buckeye Road groundwater collection drain.
- Ardaman provided hard copies and a CD for Phase II Slope Closure drawing revisions on 12/14/06 as follows: C-1, revision 2, and D-2, revision 1, both dated 12/13/06.

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- Drawings C-1, C-2, D-1, D-2 and D-3 were distributed at the 4/5/07 meeting for the First 50 percent - Plant Watershed Areas. Drawing C-1, revision 1 and a CD were distributed at the meeting for use as an interim grading plan.
- Ardaman distributed a detailed grading plan figure at the 5/10/07 meeting to clarify the transition from typical berm section to outlet pipe profile at the locations of the SCP cap outlets; additional clarifications were sent by email to CDM on 5/21/03 and 5/23/07.
- Regarding closure of the NGS-N crest roads, Ardaman replied to CDM's proposed location for placement of gypsum to be excavated to lower the crest roads to grade in a 6/6/07 email. A marked-up copy of the proposed typical cross section for placement of gypsum on the north end of the NGS-S east slope was provided a sketch at the meeting. See 8.0 Technical Items, Miscellaneous for more.

Quality Control Activities

- Ardaman had 9 technicians on site this reporting period.
- In-place gypsum/soil density tests
Phase II SCP closure - 132 passing, 2 failing, none pending.
- In-place soil fill density tests
OGS reservoir slope cover - no change - 59 passing, none failing, none pending.
Phase I stormwater ditches soil cover - 68 passing, none failing, none pending.
- Liner conformance testing
A summary of conformance testing, revision 5, updated 7/11/07, was distributed at the meeting. It was noted that there is no factory report for 6 rolls of 40-mil smooth, and no receiving or sampling record for 9 rolls of 80-mil textured. Comanco was requested to follow up.
- Liner destructive tests (DT's)
SCP Phase II pond - no change - 81 marked, 81 passing, none failing, none pending.
- Liner anchor trench compaction tests
SCP Phase II pond - no change - 8 passing, none failing, none pending.

Miscellaneous

- Rainfall was reported by CDM at 0.42" from 7/3/07 through 7/10/07.
- CDM and Ardaman continue to monitor the Granddaddy Boil location.
- Protection of the twin 18" gate valves on the NGS-N outlet pipeline and plans for final grading of the existing low area around the valves at the northwest corner on the NGS-N were discussed at the 5/17/07 meeting. Ardaman will provide a sketch for HRK's review and then to CDM for execution.
- Ardaman indicated at the 5/31/07 meeting that the design for the south drain segment east of Outfall 003 will be revised for compatibility with the proposed Buckeye Road groundwater collection drain and associated cutoff wall. CDM indicated their selection of drain Option 1 at the 6/21/07 meeting.
- Regarding removal and placement of gypsum from the NGS-N northern and western crest roads, Ardaman indicated to CDM by email on 6/8/07 that the capacity of the proposed placement area on the NGS-N northeast slope (station 26+50 to 30+50) is approximately 2,000 cy, whereas the anticipated cut volume is approximately 4,000 cy. Several supplemental gypsum placement areas have since been identified and checked for potential storage capacity, including the following: gypsum ramp at the northeast corner of the NGS-N (1,500 cy); NGS-N crest road west of the Relief Ditch (1,200 to 1,500 cy); NGS-N slope at the northwest corner (capacity not estimated). It was noted at the 7/5/07 meeting that some gypsum could also potentially be placed on the wide gypsum crest road between the NGS-S Cap and the NGS-S as needed to restore the correct surface gradient (CDM offered to provide recent crest road elevation survey data for feasibility review).
- Regarding erosion repairs presently being performed by Compass on the Phase II slopes, it was noted during the 6/21/07 site tour that erosion gullies were being filled with loose dry soil, which has a high erosion potential. It was suggested that CDM/Compass consider wetting, scarifying, dressing and recompacting (tracking in with a dozer) the eroded gypsum surface prior to placement of soil dressing and re-seeding. CDM/Compass concurred and agreed to revisit and revise slope repair protocols.

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- It was noted on the site tour that germination on the NGS-N slope has improved, however, deep erosion gullies (up to 2' deep) are present at many locations on the lower slope (such as those observed on the NGS-N north slope just above the 1:1 cut during the 7/12/07 site tour). CDM/Compass indicated that erosion gullies such as these would be opened up by ripping, followed by wetting and recompaction prior to re-seeding or sodding. It was indicated that this could be done most efficiently at the time that soil cover is being placed in the stormwater ditch adjacent to wherever such repairs are needed, at which time the soil cover will provide access to the repair area.
- It was noted at the 7/5/07 meeting that drainage along the NGS-N west road is blocked by the 24" outlet pipe - CDM agreed to install culvert(s) as necessary to provide drainage. It was also noted that the pipe is gouged at several locations; CDM will be advised as to whether or not repairs are necessary.
- Regarding seepage from the Gulfstream II recharge ditch system which was recently observed to result in surface ponding on the Piney Point property in the vicinity of MW-10A, Compass advised that recharge ditch water levels are not specifically addressed in the permit, but had been advised by their consultants to keep the water level as high as practical. Compass agreed that water levels will be controlled to prevent future seepage breakouts.
- It was noted at the 7/5/07 meeting that surface water control activities associated with soil cover placement in the Phase II stormwater pond have included pumping clean runoff over the north dike where it then percolates into the ground. It was agreed that water should be tested and Department approval sought on a case by case basis before pumping to a location where it can percolate into the ground.
- CDM/Compass were advised that the soil cover on the lined perimeter berm of the SCP-S compartment will need to be placed and compacted prior to filling more than about half of the up-gradient area of the SCP-S cap in order to provide/preserve design stormwater detention capacity and hence prevent uncontrolled discharge of stormwater into the seepage ditch.

Acceptances

- On 7/5-11/07, SCP phase II seepage collection system, subgrade for drain installation from station 117+00 to 120+00.
- On 7/6-11/07, SCP phase II seepage collection system top-of-gravel, from station 114+00 to 117+00.
- On 7/5/07, 40-mil liner installation in the SCP-S west compartment bottom and dikes south of contour elevation 10.65'.
- On 7/6-11/07, soil cover for sod installation, Phase I Slopes south stormwater ditch from station 106+00 to 127+00.

9.0 COMMENTS by PROGRAM MANAGER

- A proposal for gravel erosion protection, yet to be installed along the inboard slope of the access road at the toe of the OGS-S slope cover, was last discussed by conference call on 2/13/07 between FDEP, CDM and Ardaman. [Ardaman forwarded a sketch to CDM showing a potential cross section revision that may be considered to reduce the required gravel quantity via email on 2/23/07.] It has been agreed that the existing access ramps will be left in place until this work is done. Further discussions will be scheduled with FDEP.
- Based on updated grassing tabulations previously forwarded to FDEP, change order no. 20 is in progress.
- CDM received an updated cost proposal from Compass for closure of the First 50 percent - Plant Watershed Area, which was forwarded to FDEP on 6/12/07; discussions are ongoing.
- Preparation of a change order request is in progress by CDM for liner work and soil cover quantities for crest road closure.
- CDM requested a copy of the gas line as-built provided to Ardaman by FDEP at the 6/21/07 meeting.

10.0 COMMENTS by FDEP

- FDEP is pleased with the work progress accomplished by CDM, Compass and Comanco since last site visit on 6/21/07. See 6.0 Project Schedule for more.

11.0 COMMENTS by HRK

- It was noted that the utility poles and wires have been removed along the northern edge on the SCP-N.