ADDENDUM 4-D
EMBANKMENT SETTLEMENT ANALYSIS

September 12, 2014 17590-CX

Leland Huffman
AUC, LLC
1536 Cole Boulevard, Suite 330
Lakewood, CO 80401

RE: Embankment Settlement Analysis
Reno Creek Project
Wright, Wyoming

Dear Mr. Huffman:

Project Information

We understand that a backup storage pond, having approximate dimensions of 100 feet by 200 feet, is anticipated to consist of a HDPE geomembrane liner placed above a drainage geonet for leak detection. The depth of the pond is 8 feet while the operating level will be 6 feet. The pond will be constructed on a sloping site, with the majority of the pond within excavation and the down slope embankment being approximately 7 feet of fill. The settlement analysis was performed for the final construction condition.

Embankment Settlement Analysis

A settlement analysis of the proposed pond was completed using the site specific material properties. The model predicts the approximate settlement which can be expected within the embankment after final construction grading has been completed. The maximum settlement of 0.35 feet occurred in the eastern embankment of the proposed pond where approximately 7.1 feet of fill will be placed on the native sandy clay. The analysis is attached. It should be noted that no analysis of the tensile strain of the geosynthetics has been completed. This is primarily due to the fact that the geosynthetics specifications were not available at the time of this report. As the pond design progresses the specified geosynthetics should be designed to allow for the approximate 5 percent strain expected.

References

Inberg-Miller Engineers "Subsurface Exploration and Geotechnical Engineering Report – Reno Creek Project Campbell County, Wyoming", July 9, 2012

Nuclear Regulatory Commission "Regulatory Guide 3.11 – Design, Construction, and Inspection of Embankment Retention Systems at Uranium Recovery Facilities" January 2008.

Closure

This letter has been prepared for the exclusive use of our client, AUC LLC, for a settlement evaluation of the proposed Reno Creek in-situ uranium recovery facility. All information referenced in the letter, as well as any future written documents that address comments or questions regarding this letter, constitute the "entire report". Inberg-Miller Engineers' conclusions, opinions, and recommendations are based on the entire report.

If you have any questions, please contact us at 307-577-0806.

Sincerely,

INBERG-MILLER ENGINEERS

Ben Hauser, P.E., G.I.T.
Geotechnical Engineer

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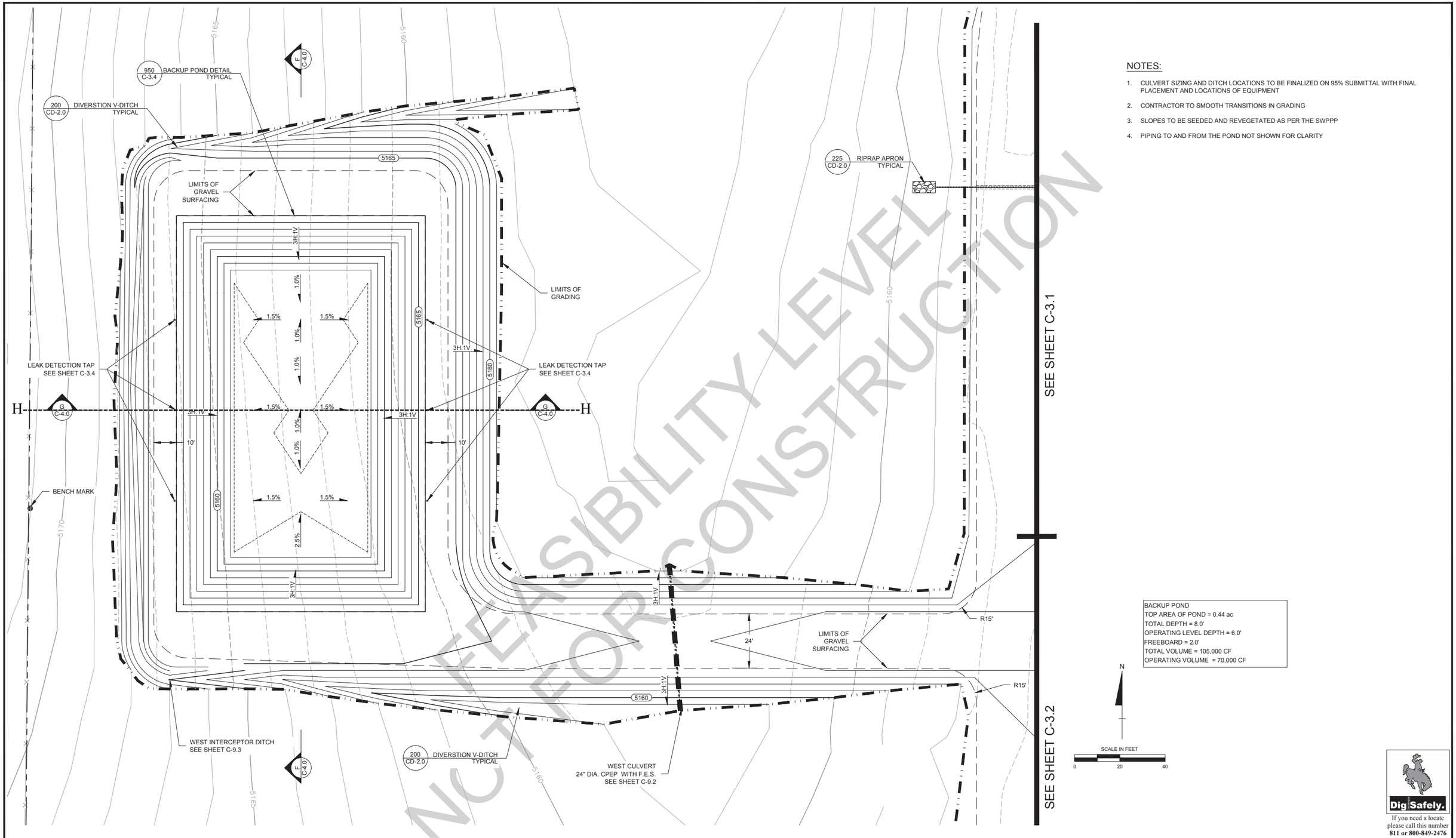

NOTES:

1. CULVERT SIZING AND DITCH LOCATIONS TO BE FINALIZED ON 95% SUBMITTAL WITH FINAL PLACEMENT AND LOCATIONS OF EQUIPMENT
2. CONTRACTOR TO SMOOTH TRANSITIONS IN GRADING
3. SLOPES TO BE SEEDED AND REVEGETATED AS PER THE SWPPP
4. PIPING TO AND FROM THE POND NOT SHOWN FOR CLARITY

BACKUP POND
TOP AREA OF POND = 0.44 ac
TOTAL DEPTH = 8.0'
OPERATING LEVEL DEPTH = 6.0'
FREEBOARD = 2.0'
TOTAL VOLUME = 105,000 CF
OPERATING VOLUME = 70,000 CF

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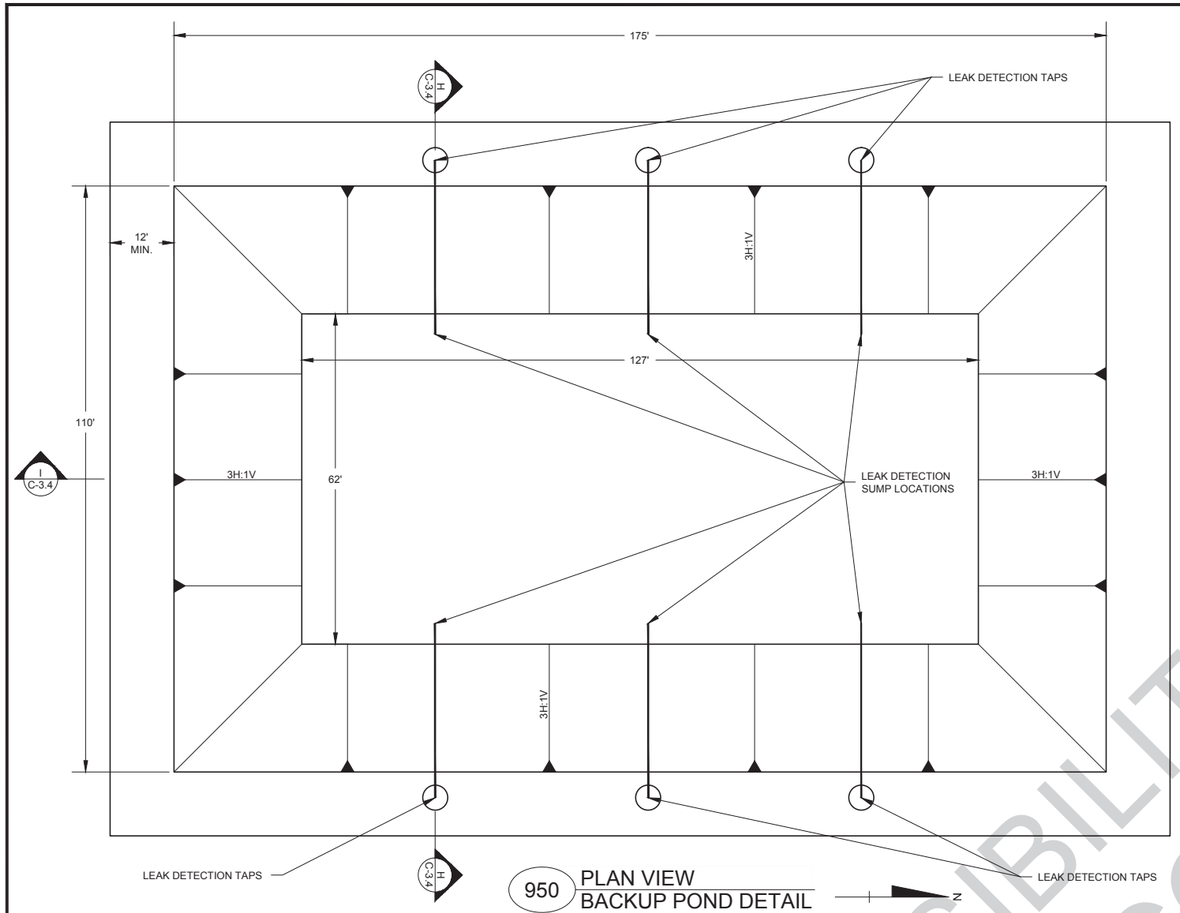
PROJECT NO.:	CADD:	CHECKED BY:	APPROVED BY:	PLOT DATE:
2012-250	TBK	RRU	SLH	10/2/2012 3:31 PM

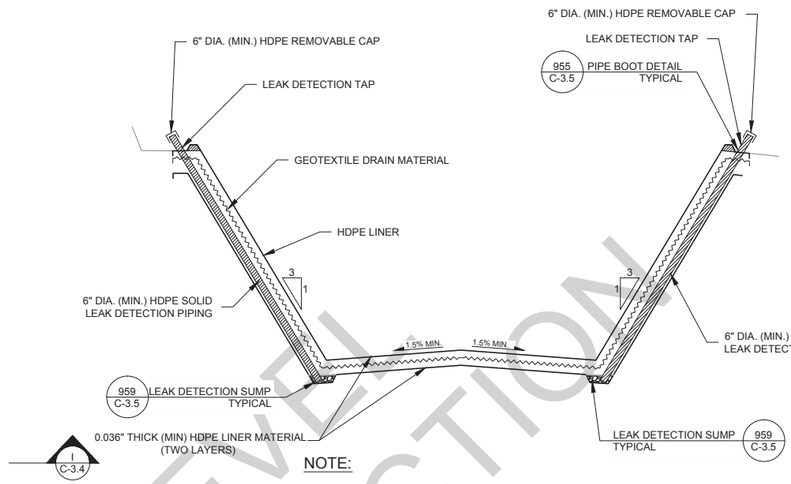
GRADING: BACKUP POND
RENO CREEK PROJECT
PREPARED FOR
AUC LLC
CAMPBELL COUNTY, WYOMING

SHEET
C-3.3

DRAWING: Z:\Current_Projects\2012-250_AUC_Prefeasibility_Study\020-CAD\Sheets\Civil Site\2012-250_C03-GRADING.dwg



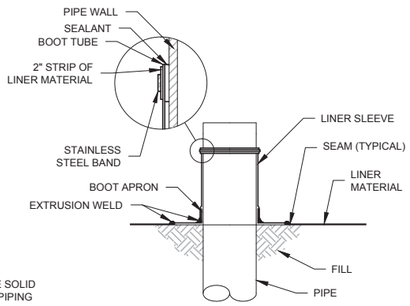
950 PLAN VIEW
BACKUP POND DETAIL
NTS



NOTE:

1. LINER MATERIALS SHOWN AS SEPARATED FOR VISUAL CLARITY. PVC LINER, GEOTEXTILE, AND HDPE LINER ABUTTED AGAINST EACH OTHER. PRIMARY AND SECONDARY LINERS WILL BE A MINIMUM OF 0.036" THICK

HH CROSS SECTION: BACKUP POND EAST/WEST
BACKUP POND DETAIL
NTS

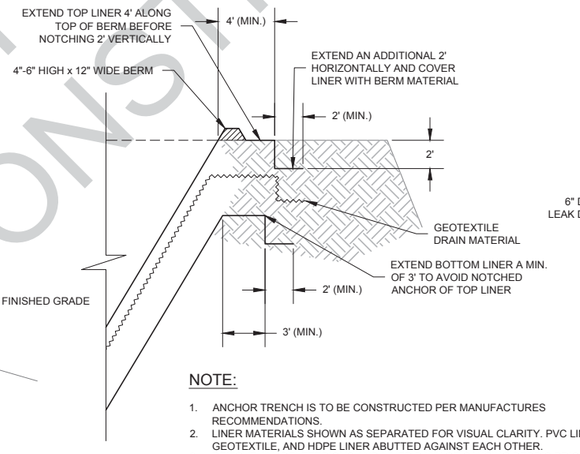


955 PIPE BOOT DETAIL
BACKUP POND DETAIL
NTS

II CROSS SECTION: BACKUP POND NORTH/SOUTH
BACKUP POND DETAIL
NTS

NOTE:

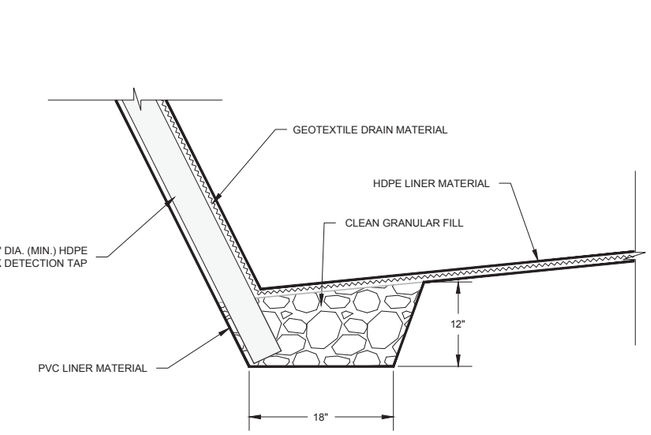
1. LINER SUB-BASE PREPARATION OF NATIVE SOILS TO BE COMPACTED TO 95% (MIN.) OF STANDARD PROCTOR



NOTE:

1. ANCHOR TRENCH IS TO BE CONSTRUCTED PER MANUFACTURES RECOMMENDATIONS.
2. LINER MATERIALS SHOWN AS SEPARATED FOR VISUAL CLARITY. PVC LINER, GEOTEXTILE, AND HDPE LINER ABUTTED AGAINST EACH OTHER.
3. REMOVE ALL DELETERIOUS AND LINER DAMAGE CAUSING DEBRIS PRIOR TO INSTALLING PVC LINER.

957 LINER ANCHOR DETAIL
BACKUP POND DETAIL
NTS



NOTES:

1. ALL LINER PRODUCTS ARE TO BE INSTALLED PER MANUFACTURES RECOMMENDATIONS
2. LEAK DETECTION TAP: 6" MIN. DIA. HDPE PIPE
3. LEAK DETECTION TAPS USED AS WATER RETRIEVAL POINTS

959 LEAK DETECTION SUMP
BACKUP POND DETAIL
NTS

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GRADING: BACKUP POND DETAILS
RENO CREEK PROJECT
PREPARED FOR
AUC LLC
CAMPBELL COUNTY, WYOMING

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Change in Grade After Settlement
Section H-H
Initial Grade
Final Grade
5168
5166
5164
5162
5160
5158
5156
Elevation (ft)
0
50
100
150
200
250
300
Length (ft)

Embankment Settlement Table - Section H-H

Point	Initial Elevation (ft)	Fill Depth (ft)	Settlement (ft)	Final Elevation (ft)	Stationing (ft)
A	5166.3	0	0.00	5166.30	64
B	5158	0	0.00	5158.00	88
C	5158	0	0.00	5158.00	152
D	5161.7	1.7	0.13	5161.57	163
E	5166	6.5	0.34	5165.66	176
F	5166	7.1	0.35	5165.65	191
G	5162.6	3.9	0.24	5162.36	201
H	5159	0	0.00	5159.00	212
I	5157	0	0.00	5157.00	247