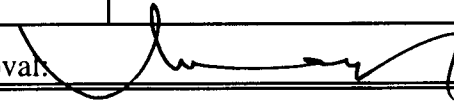
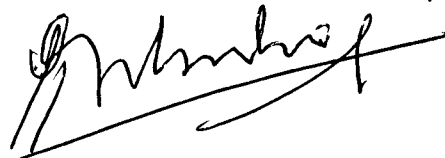


SOFTWARE RELEASE NOTICE

1. SRN Number: 257 MGFE - SRN - 257		
2. Project Title: Private Fuel Storage Facility		Project No. 20.01405.041
3. SRN Title: ProShake Version 1.1		
4. Originator/Requestor: Bruce Mabrito		Date: 11/05/01
5. Summary of Actions <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Release of new software <input type="checkbox"/> Release of modified software: <input type="checkbox"/> Enhancements made <input type="checkbox"/> Corrections made <input type="checkbox"/> Change of access software <input type="checkbox"/> Software Retirement 		
6. Validation Status <ul style="list-style-type: none"> <input type="checkbox"/> Validated <input type="checkbox"/> Limited Validation <input checked="" type="checkbox"/> Not Validated Explain: To be validated 		
7. Persons Authorized Access		
Name	Read Only/Read-Write	Addition/Change/Delete
Goodluck Ofoegbu	Read Only	Addition
8. Element Manager Approval: 		Date: 11-16-01
9. Remarks: Access is not limited for commercial software		

SOFTWARE SUMMARY FORM

01. Summary Date: 11/05/01	02. Summary prepared by (Name and phone) Bruce Mabrito, (210) 522-5149	03. Summary Action: New	
04. Software Date: 10/31/01	05. Short Title: ProShake Version 1.1		
06. Software Title: ProShake, Ground Response Analysis Program, Version 1.1			07. Internal Software ID: NONE
08. Software Type: <input type="checkbox"/> Automated Data System <input checked="" type="checkbox"/> Computer Program <input type="checkbox"/> Subroutine/Module	09. Processing Mode: <input checked="" type="checkbox"/> Interactive <input type="checkbox"/> Batch <input type="checkbox"/> Combination	10. Application Area a. General: <input checked="" type="checkbox"/> Scientific/Engineering <input type="checkbox"/> Auxiliary Analyses <input type="checkbox"/> Total System PA <input type="checkbox"/> Subsystem PA <input type="checkbox"/> Other b. Specific:	
11. Submitting Organization and Address: CNWRA/SwRI 6220 Culebra Road San Antonio, TX 78228		12. Technical Contact(s) and Phone: Goodluck Ofoegbu (210) 522-6641	
13. Software Application: Used for seismic site response analyses			
14. Computer Platform CALIB (Windows NT workstation)	15. Computer Operating System: Windows NT 4.0 (Build 1381: Service Pack 6)	16. Programming Language(s): FORTRAN	17. Number of Source Program Statements: N/A
18. Computer Memory Requirements: N/A	19. Tape Drives: NONE	20. Disk Units: N/A	21. Graphics: Windows NT Graphics
22. Other Operational Requirements NONE			
23. Software Availability: <input type="checkbox"/> Available <input checked="" type="checkbox"/> Limited <input type="checkbox"/> In-House ONLY		24. Documentation Availability: <input checked="" type="checkbox"/> Available <input type="checkbox"/> Preliminary <input type="checkbox"/> In-House ONLY	
25. Software Developer: EduPro Civil Systems, Inc., Redmond WA Date: 11/15/2001			



CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

QA VERIFICATION REPORT

FOR

→ **ACQUIRED SOFTWARE NOT TO BE MODIFIED** ←

Software Title/Name: **ProShake**
Version: **1.1**
Demonstration workstation: **CALIB (Windows NT) Room A112**
Operating System: **Windows NT 4.0**
User: **Goodluck Ofoegbu**

NOTE: Acquired software may or may not meet all requirements and will be evaluated on a case-by-case basis.

Installation Testing [TOP-018, Section 5.6]

Has *installation testing* been conducted for each intended computer platform and operating system?

Yes: ☒ No: ☐ N/A: ☐

Computer Platforms: **CALIB** Operating Systems: **Windows NT 4.0**

Location of Acceptance Test Results: **QA folder**

Comments:.

Software Output [TOP-018, Section 5.5.4]

Is software designed so that individual runs are uniquely identified by date, time, name of software and version?

Yes: ☐ No: ☒ N/A: ☐

Date and Time Displayed: _____

Name/Version Displayed: _____

Comments: **Name of software, version, and date will appear in the Help About**

NOTE: Output identification content and format is typically taken as is.

Medium Documentation [TOP-018, Section 5.5.6]

The physical labeling of software medium (tapes, disks, etc.) contains: Program Name, Module/Name/Title, Module Revision, File type (ASCII, OBJ, EXE), Recording Date, and Operating System(s)?

Yes: ☒ No: ☐ N/A: ☐

Comments: **Executable**

CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

QA VERIFICATION REPORT

FOR

→ ACQUIRED SOFTWARE NOT TO BE MODIFIED ←

User Documentation [TOP-018, Section 5.5.7]

Is there a Users' Manual for the software and is it up-to-date?

Yes: ☒ No: ☐ N/A: ☐

User's Manual Version and Date: **Version Number only/No date**

Comments:

Are there basic instructions for the *installation* and *use* of the software?

Yes: ☒ No: ☐ N/A: ☐

Location of Instructions: **QA Software folder, on disketts**

Comments:

Configuration Control [TOP-018, Section 5.7, 5.9.3]

Is the Software Summary Form (Form TOP-4-1) completed and signed?

Yes: ☒ No: ☐ N/A: ☐

Date of Approval: **11/15 /2001**

Is the list of files attached to the Software Summary Form complete and accurate?

Yes: ☒ No: ☐ N/A: ☐

Comments:

Is the ~~source code~~ ^{NO CFW} available or, is the executable code available in the case of (acquired/commercial codes)?

Yes: ☒ No: ☐ N/A: ☐

Location of ~~Source Code~~ ^{Executable}: **QA Software folder, on diskettes**

Comments:

Have all the script/make files and executable files been submitted to the Software Custodian? **NO**

Only the executable files are being submitted. ✓

Yes: ☒ No: ☐ N/A: ☐

Location of executable files: **QA Software folder, on diskettes**

Comments:

CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

QA VERIFICATION REPORT

FOR

→ ACQUIRED SOFTWARE NOT TO BE MODIFIED ←

Software Release [TOP-018, Section 5.9]

Upon acceptance of the software as verified above, has a Software Release Notice (SRN), Form TOP-6 been issued and does the version number of the software match the documentation?

Yes: ☒ No: ☐ N/A: ☐

SRN Number: MGFE-SRN-257

Comments:

Software Validation [TOP-018, Section 5.10]

Has a Software Validation Test Plan (SVTP) been prepared for the *range of application* of the software?

Yes: ☐ No: ☒ N/A: ☐

Version and Date of SVTP: ____

Date Reviewed and Approved via QAP-002: ____

Comments: **To be determined**

Has a Software Validation Test Report (SVTR) been prepared that documents the results of the validation cases, interpretation of the results, and determination if the software has been validated?

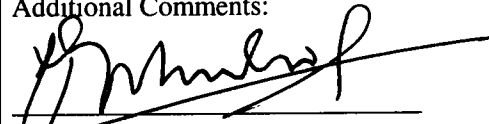
Yes: ☐ No: ☒ N/A: ☐

Version and Date of SVTR: ____

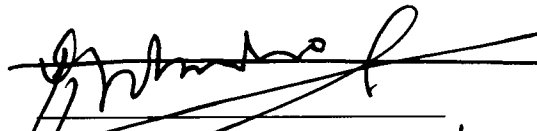
Date Reviewed and Approved via QAP-002: ____

Comments.: **Due to be prepared**


Additional Comments:





Software Evaluator/User/Date
12/03/2001



Software Custodian/Date
12/03/2001


12/11/2001


12/11/2001


12/11/2001
Software Custodian DATE

CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

MEMORANDUM

November 15, 2001

TO: Bruce Mabrito

FROM: Goodluck I Ofoegbu

SUBJECT: Report on Installation Verification for ProShake Version 1.1

I have performed an installation verification test on ProShake Version 1.1. The test was performed on October 31, 2001. The verification test consists of running a test problem described in the ProShake Version 1.1 Users' Manual. The calculated results match results given in the manual for the test problem. Thank you.

Report on Installation Verification for ProShake Version 1.1

Verification Test Performed by Goodluck Ofoegbu

October 31 2001

ProShake Report

Data File: D:\PSHakeVerify\Tutorial\TUTORIAL.DAT

Soil Profile

Profile Name: Soil profile for ProShake Tutorial #1
Water Table: Not Applicable
Number of Layers: 16

Layer Number	Material Name	Thicknes s (ft)	Unit Weight (pcf)	Gmax (ksf)	Vs (ft/sec)	Modulus Curve	Damping Curve	Mod. Paramete r	Damp. Paramete r
1	Soft silty clay	5.00	100.00	752.74	492.13	Vucetic - Dobry	Vucetic - Dobry	10.00	10.00
2	Soft silty clay	5.00	100.00	752.74	492.13	Vucetic - Dobry	Vucetic - Dobry	10.00	10.00
3	Soft silty clay	5.00	100.00	752.74	492.13	Vucetic - Dobry	Vucetic - Dobry	10.00	10.00
4	Soft silty clay	5.00	100.00	752.74	492.13	Vucetic - Dobry	Vucetic - Dobry	10.00	10.00
5	Soft silty clay	5.00	100.00	752.74	492.13	Vucetic - Dobry	Vucetic - Dobry	10.00	10.00
6	Soft silty clay	5.00	100.00	752.74	492.13	Vucetic - Dobry	Vucetic - Dobry	10.00	10.00
7	Soft silty clay	5.00	100.00	752.74	492.13	Vucetic - Dobry	Vucetic - Dobry	10.00	10.00
8	Soft silty clay	5.00	100.00	752.74	492.13	Vucetic - Dobry	Vucetic - Dobry	10.00	10.00
9	Soft silty clay	5.00	100.00	752.74	492.13	Vucetic - Dobry	Vucetic - Dobry	10.00	10.00
10	Soft silty clay	5.00	100.00	752.74	492.13	Vucetic - Dobry	Vucetic - Dobry	10.00	10.00
11	Stiff clay	10.00	120.00	1,800.00	694.70	Vucetic - Dobry	Vucetic - Dobry	20.00	20.00
12	Stiff clay	10.00	120.00	1,800.00	694.70	Vucetic - Dobry	Vucetic - Dobry	20.00	20.00
13	Stiff clay	10.00	120.00	1,800.00	694.70	Vucetic - Dobry	Vucetic - Dobry	20.00	20.00
14	Stiff clay	10.00	120.00	1,800.00	694.70	Vucetic - Dobry	Vucetic - Dobry	20.00	20.00
15	Stiff clay	10.00	120.00	1,800.00	694.70	Vucetic - Dobry	Vucetic - Dobry	20.00	20.00
16	Bedrock	Infinite	150.00	29,138.43	2,500.00	Rock	Rock		

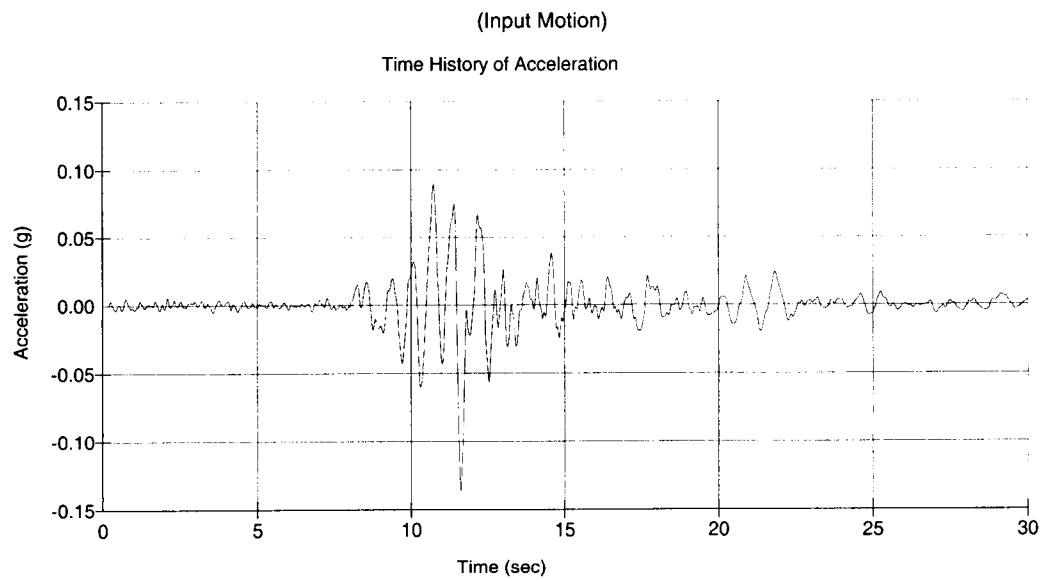
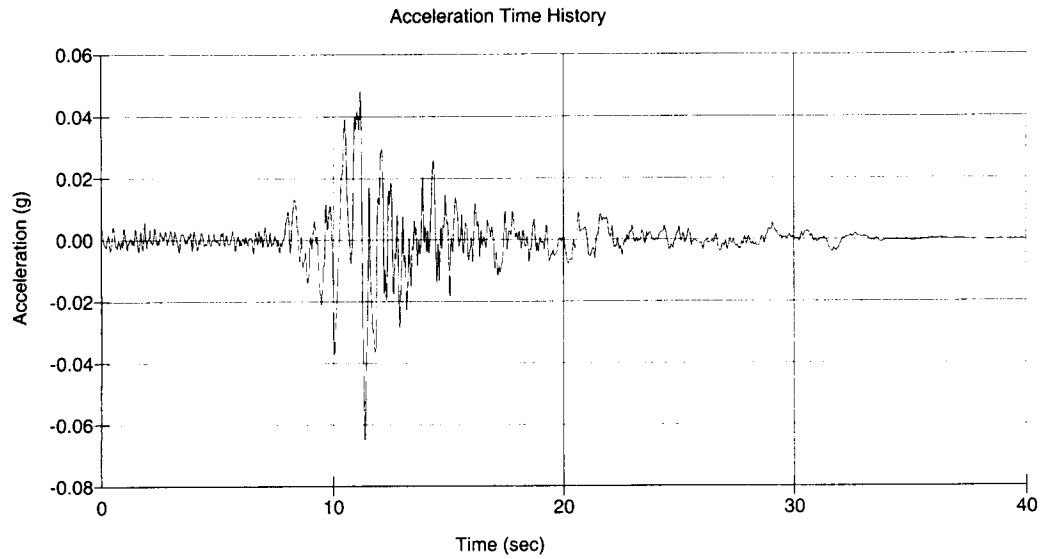
Input Motion

Number of Motions: 1
Number of Iterations: 5
Strain Ratio: 0.65
Tolerance: 5.00%

File Name	No of Acc. Values	Max. Acc. (g)	Time Step (sec)	Cutoff Freq. (Hz)	No of Fourier Terms	Layer	Outcrop
C:\PROGRA~1\PROSHA KE\YERBA.EQ	2000	0.065	0.020	20.00	2048	16	Yes

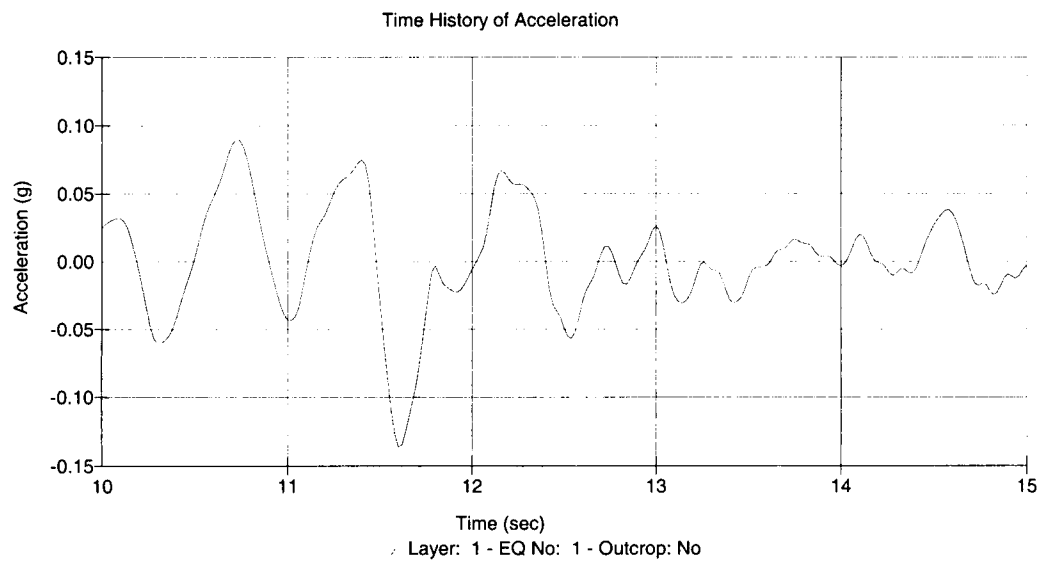
Output Locations

Layer No	Depth (ft)	Outcrop
1	0.00	No
2	5.00	No
11	50.00	No

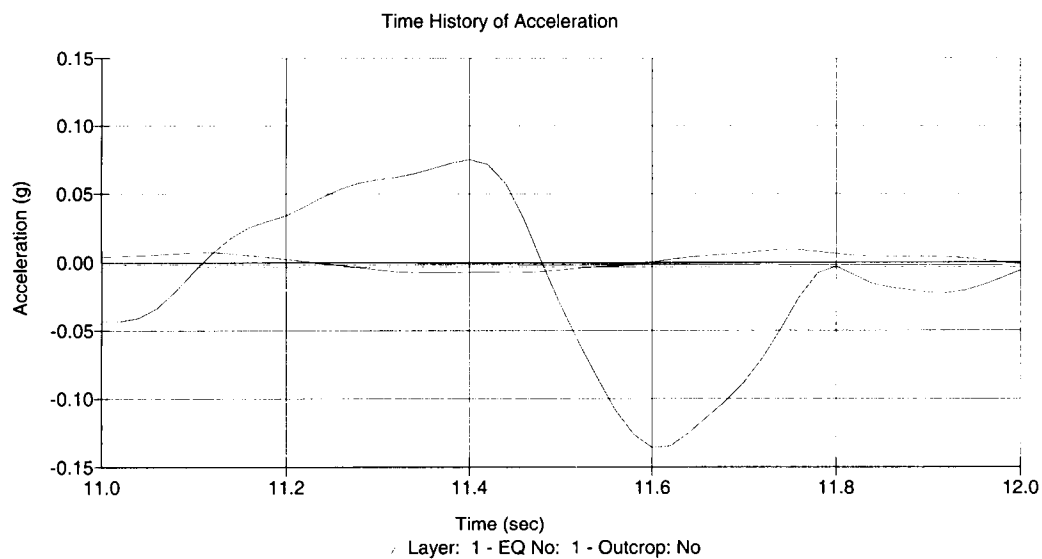


Layer: 1 - EQ No: 1 - Outcrop: No

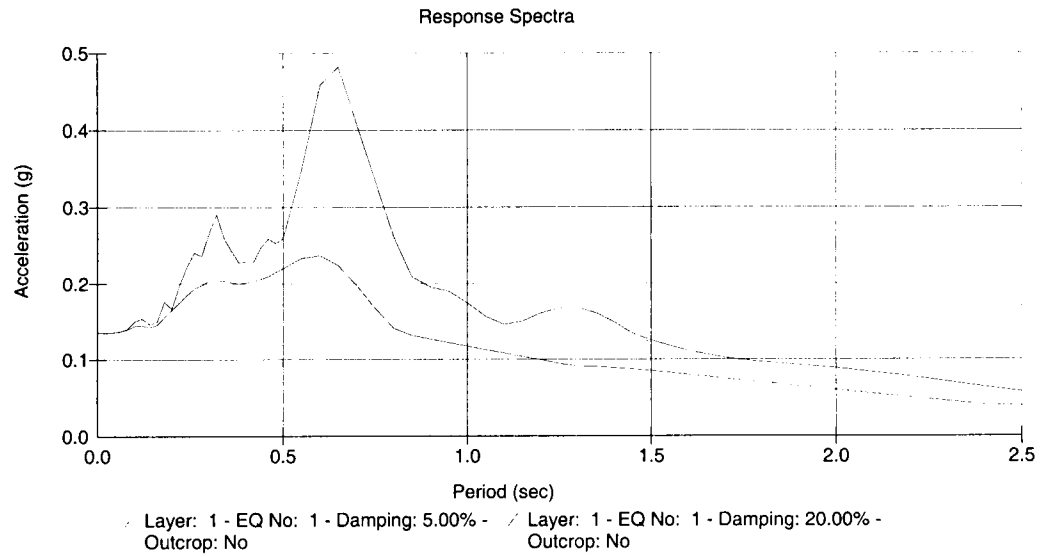
(Output ground-surface motion: Compare with p. 45 of ProShake 1.1 manual)



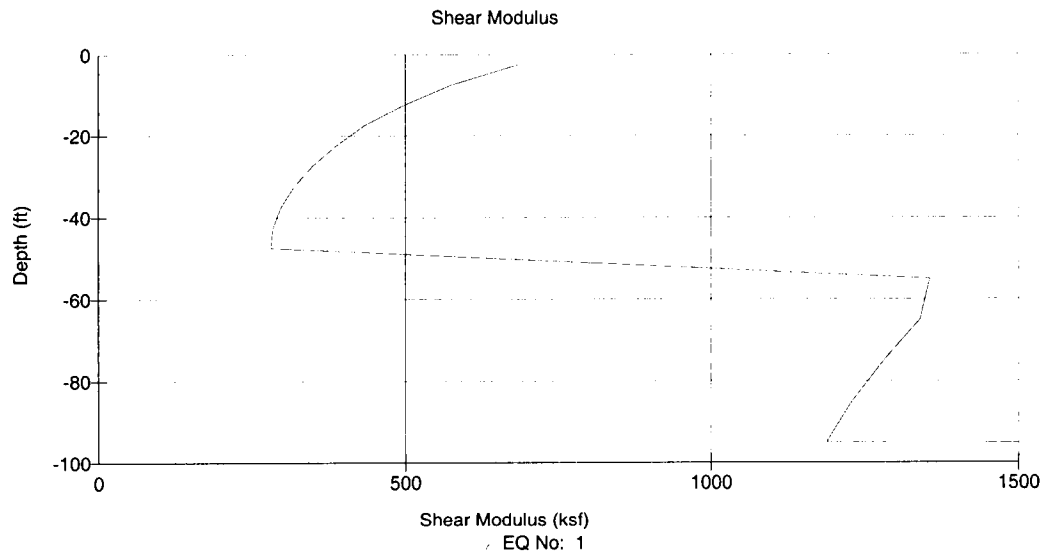
(Output ground-surface motion: Compare with p. 45 of ProShake 1.1 manual)



(Output ground-surface motion: Compare with p. 45 of ProShake 1.1 manual)



(Output ground-surface motion: Compare with p. 46 of ProShake 1.1 manual)



(Output ground-surface motion: Compare with p. 46 of ProShake 1.1 manual)