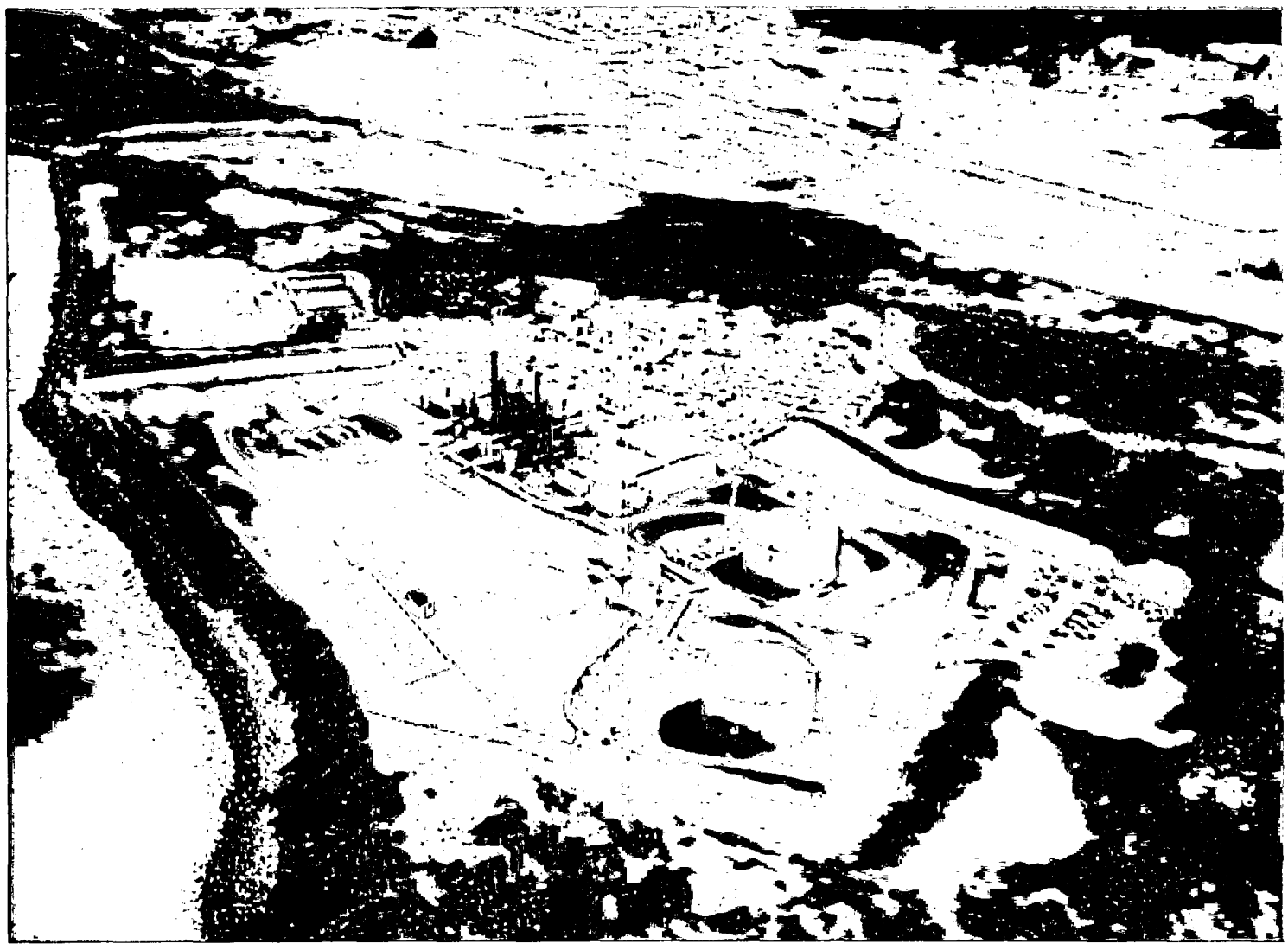
HUMBOLDT BAY

INDEPENDENT SPENT FUEL STORAGE INSTALLATION



CALCULATIONS

PG&E

PACIFIC GAS AND ELECTRIC COMPANY

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GEOSCIENCES DEPARTMENT
CALCULATION DOCUMENT

Calc Number: GEO.HBIP.02.08
Calc Revision: 1
Calc Date: 7/18/2003
Quality Related:
ITR Verification Method: A

1.0 CALCULATION TTLE:

DETERMINATION OF POTENTIAL EARTHQUAKE-INDUCED DISPLACEMENTS OF CRITICAL SLIDE ALONG HBIP ISFSI TRANSPOT ROUTE

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3.0 RECORD OF REVISIONS

Rev. No.	Reason for Revision	Revision Date
0	Initial Issue	11/27/02
1	In revision 0 (2002) of this calculation package the program QUAD4M was used to compute seismic coefficients of potential sliding masses at HBIP transport route. The program QUAD4M had been updated to QUAD4MU and was verified in calculation package GEO.DCPP.01.34, Revision 4 in 2003. The updated program QUAD4MU mainly modified the subroutine in QUAD4M for the calculation of seismic coefficient. In this revision 1, the earthquake-induced displacements at the ISFSI transport route are re-evaluated using the updated program QUAD4MU. Attachments E, F, G and H are new for revision 1. These are input files and excerpts of output files for dynamic response and deformation calculations. Attachments A, B, C and D remain unchanged and are copies from revision 0.	7/1/2003

4.0 PURPOSE

As required by Geosciences Work Plan GEO 2002-03 entitled, "Development of Slope Stability Calculations for the Humboldt Bay ISFSI," this calculation package estimates earthquake-induced permanent displacements of the most critical potential sliding mass along the proposed HBIP transport route, using field and laboratory data, postulated design ground motions, and a Newmark-type procedure incorporating a finite element model of the site.

In revision 0 of this calculation package, the program QUAD4M was used to compute seismic coefficients of potential sliding masses at the transport route. The program QUAD4M had been updated to QUAD4MU and verified in calculation package GEO.DCPP.01.34, Revision 4 in 2003. The updated program QUAD4MU mainly revised the subroutine in QUAD4M for the calculation of seismic coefficient. Geosciences Department of PG&E requested that the finite element analyses be repeated to obtain the updated seismic coefficient time histories for the potential sliding masses using QUAD4MU. These time histories were also re-integrated to obtain new estimates for the earthquake-induced displacement at the transport route based on the results of the updated program QUAD4MU. Also, the computed acceleration time histories, and the corresponding response spectra were all updated in this revision.

5.0 ASSUMPTIONS

1. There is no potential for liquefaction along the route. This is a reasonable assumption as concluded on page 8 of calculation package GEO.HBIP.02.02.
2. For purposes of analyses, stratigraphic layers are assumed to lie near horizontally. This is a reasonable assumption, as shown on Figure 4-14 of Section 4, Site Geology, of Technical Report TR-HBIP-2002-01.

3. Groundwater is assumed to be at elevation +6 feet, mean lower low water (MLLW) datum. This is a reasonable assumption, as documented on page 2 of GEO.HBIP.02.02. This elevation is consistent with those measured in monitoring wells installed in the vicinity of the wastewater ponds east of the discharge canal (Figure 4-1 of Section 4 of TR-HBIP-2002-01). Water levels in these wells range between 4 and 7 feet below ground surface and respond only slightly to tidal cycles (White, 2002d).
4. The undrained strengths of stiff cohesive soils and dense sandy soils along the route are not reduced due to earthquake shaking. This is a reasonable assumption because, as reported by Makdisi and Seed (1978), stiff clays and dense sands do not suffer significant reduction in undrained strength due to cyclic loading; such soils retain most of their initial undrained strength even after being subjected to significant cyclic loading.
5. Input ground motions used to analyze the response along the route are deconvolved using the 1-D program SHAKE to the base of the 2-D finite element mesh from the lower "free field" ground surface of the section modeled rather than at the higher surface elevations of the hillside (Figure 8-4). This is a conservative assumption because the ground motions calculated at higher elevations will be greater than the input ground motion due to topographic amplification, thus leading to greater calculated displacements.
6. The 1-D and 2-D site response analyses described herein used a single velocity profile developed using a factor of +1.22 (as described in Input 12, below) rather than varying the profile by plus or minus this factor to determine the maximum site response. This is a reasonable assumption, because Figures 7 and 8 in GEO.HBIP.02.04 indicate maximum site amplification occurs for the positive (upper bound) factor over nearly all frequencies for both the fault normal and fault parallel components.
7. Vertical ground motions are not considered in the analyses, as they have been shown to have limited impact on the magnitude of calculated displacements (Yan and others, 1996).
8. Properties selected for analysis of ISFSI site stability in calculation package GEO.HBIP.02.07 are appropriate for use at the transport route section selected for analyses in this calculation package, with the exception of the uppermost clay layer which is assigned a reduced strength as described in Step 3 of the Body of the

Calculation. This assumption is reasonable because soil stratigraphy and properties in borings near the transport route section analyzed are consistent with those determined at the ISFSI site, as discussed in more detail in step 1 of the Body of the Calculation.

9. The centerline transporter load is placed at the centerline of the proposed transport route. This is a reasonable assumption as the most likely location during transport.

6.0 INPUTS

1. The site map (Figure 8-1) is obtained from Figure 4-2 of Section 4, Site Geology, of Technical Report TR-HBIP-2002-01.
2. The proposed transport route (a portion of which is shown on Figure 8-1) is obtained from White, 2002a (Attachment A).
3. The borings nearby the transport route critical section (determined as described in Step 1 of Methodology) are obtained from White, 2002b (Attachment A).
4. The table of soil properties for stability analyses (Table 8-1) is obtained from Table 7-2 of calculation GEO.HBIP.02.07.
5. The table of soil properties for site response analyses (Table 8-2) is obtained from Table 7-3 of GEO.HBIP.02.07.
6. Relationships of modulus and damping ratio with shear strain referenced in Table 8-2 are obtained from Figures 7-11 and 7-12 of GEO.HBIP.02.07 and as described in Step 3 of GEO.HBIP.02.07.
7. The transporter load and dimensions are obtained from Work Plan GEO 2002-03, Attachment 2.
8. Design surface ground motions for use in response analyses are obtained from White, 2002c, as confirmed in White, 2002e (Attachment A).
9. The primary seismic source for ground motions (the Bay Entrance fault) is obtained from Input 9 of GEO.HBIP.02.07.
10. The positive directions of primary seismic source components (fault normal and fault parallel) are obtained from Input 10 of GEO.HBIP.02.07.
11. The orientation of the primary seismic source is obtained from Input 11 of GEO.HBIP.02.07.
12. The stiff soil velocity profile is developed by multiplying velocity values in Input 5 above by 1.22 (as described in Assumption 6 above) or k_{2max} values in Input 5 by 1.5, as recommended on page 26 of ASCE (1986). (Velocities are related to the

square root of soil shear modulus, as shown in Step 3 of GEO.HBIP.02.07, so the square root of the 1.5 factor in ASCE is 1.22, and k_{2max} is proportional to the shear modulus as shown on page 11, below.)

7.0 METHODOLOGY AND EQUATION SUMMARY

1. Determine the most critical location along the transport route in terms of slope stability. The most critical location will be that which meets the following two criteria simultaneously: a) closest approach of transporter to slope and b) greatest height of slope.
2. Determine subsurface stratigraphy at most critical location based on geotechnical data obtained from nearby borings and trenches.
3. Assign static and dynamic soil properties to subsurface layers based on similarities with those layers having assigned properties.
4. Perform static slope stability analysis at most critical location along transport route using program UTEXAS4 to obtain short-term static factor of safety of critical slide mass with transporter loading.
5. Perform pseudo-static slope stability analysis of critical slide mass as determined in step 4 using UTEXAS4 to determine pseudostatic horizontal acceleration that reduces factor of safety to approximately 1.0. Acceleration obtained is the yield acceleration, k_y.
6. Rotate design surface ground motions to direction of cross section and perform preliminary Newmark displacement analyses using program DEFORMP and k_y of the critical slide mass as determined in step 5, above, to assess relative magnitudes of displacements for each ground motion (see step 11, below, for fuller description of displacement analyses). Select ground motions giving greatest displacements for further analyses.

For each ground motion selected in step 6, above, the following steps were conducted:

7. Deconvolve the selected surface ground motion to the base of the finite element mesh using program SHAKE.

8. Perform a two-dimensional dynamic finite element analysis of the cross section using program QUAD4MU to determine the seismic response of the slope due to the earthquake motion as determined in step 7, above, placed at base of section.
9. Calculate seismic coefficient time history (and the maximum seismic coefficient, k_{max}) of the critical slide mass from output of the QUAD4MU analysis. The seismic coefficient is the ratio of the force induced by an earthquake in the slide mass to the weight of the mass.
10. Obtain surface ground motion calculated at one or more representative nodes in the free field from output of QUAD4MU. Compare calculated motion with input motion.
11. Perform Newmark-type displacement analyses (after Newmark, 1965), using DEFORMP, to determine earthquake-induced permanent displacements of the critical slide mass. For a specified potential slide mass, the seismic coefficient time history of that mass is compared with the yield acceleration k_y. When the seismic coefficient exceeds the yield acceleration, downslope movement will occur along the direction of the assumed failure plane. The movement will decelerate and will stop after the level of the induced acceleration drops below the yield acceleration, and the relative velocity of the sliding mass drops to zero. The accumulated permanent displacement is calculated by double-integrating the increments of the seismic coefficient time history that exceed the yield acceleration. The analysis requires the seismic coefficient time history as calculated in step 9, above, and the yield acceleration of the critical sliding mass as calculated in step 5, above.

8.0 SOFTWARE

The following computer programs (software) are used in this calculation package:

1. UTEXAS4 (version 4.0.0.8 dated 7/27/01), a commercially available Windows-compatible program to perform slope stability analyses, was verified in calculation package GEO.HBIP.02.09.
2. SHAKE (Geomatrix version dated 8/27/95), a 1-D equivalent linear site response PC DOS-compatible program used in this calculation package to compute base motions for use in finite element analyses, was modified by Geomatrix from the original developed at the University of California, Berkeley to increase the sizes of arrays to

accommodate more time history data points and a greater number of layers. The Geomatrix version of the program was verified in GEO.DCPP.02.02.

3. QUAD4MU (updated version dated 3/1/2003), a commercially available PC DOS-compatible program to perform 2-D finite element analyses, was verified in GEO.DCPP.01.34. rev. 4.
4. SPECTRAD (version dated 3/25/98), a PC DOS-compatible program developed by Geomatrix Consultants to calculated response spectra from time histories, was also verified in GEO.DCPP.01.34 in addition to QUAD4MU.
5. DEFORMP (version dated 3/30/2000), a PC DOS-compatible program developed by Geomatrix Consultants to perform Newmark-type displacement analyses, was verified in GEO.DCPP.01.35.

All programs are proprietary and designed to execute on personal computers under the Microsoft Windows 2000 operating system. No passwords are required to execute these programs.

9.0 BODY OF CALCULATION

1. The most critical location along the transport route in terms of slope stability is determined by inspection of Figure 8-1, modified to include the proposed transport route from White, 2002a. The selected location shown on Figure 8-1 meets the following two criteria simultaneously: a) closest approach of transporter to slope (in this case, the bank of the Discharge Canal) and b) greatest height of slope. Beyond this location, the distance between the transport route and the Discharge Canal bank increases as the route continues up the hill, thereby reducing the effect of the transporter load on the bank.
2. The subsurface stratigraphy at the selected location is determined based on geotechnical data obtained from nearby borings. Logs from nearby borings as provided in White, 2002b, were reviewed and stratigraphy from the logs summarized as shown on Figure 8-2. Selected soil strengths are also shown on Figure 8-2. It is seen that soil stratigraphy consists of the same sequence of stiff clays overlying dense sands and gravels as found in boring 99-2 near the proposed ISFSI site further up the hill, as summarized in Table 8-1, from Calculation Package GEO.HBIP.02.07.

3. Because available data from nearby borings as summarized on Figure 8-2 indicate soil stratigraphy and properties are consistent with those determined at the ISFSI site, static and dynamic properties of the subsurface soils are selected to be the same as at the ISFSI site as presented in GEO.HBIP.02.07, as summarized in Tables 8-1 and 8-2. One exception, as noted in Table 8-1, is the uppermost approximately 15 feet of the upper clay layer (layer 5 in Table 8-1) which is modeled with a shear strength of 900 psf based on test data from nearby 1973 boring D&M73-2 as shown on Figure 8-2.

   Calculation of transporter load to apply in analyses is determined from transporter data as found in Attachment 2 of Geosciences Work Plan GEO 2002-03. The calculation is as follows:

   Total weight = vehicle plus loaded cask = 170,000 lbs + 160,000 lbs = 330,000 lbs

   Area = (minimum track bearing length) x (track spacing plus track width)

   = 294 inches x (182 inches + 29.5 inches) = 62,181 SI = 431.8 SF

   Pressure = Total weight / Area = 330,000 lbs / 431.8 SF = 764 psf; use 800 psf

   Track width = 182 inches + 29.5 inches = 211.5 inches = 17.625 feet

   20-foot roadway ~ 25 feet wide in cross section

   17.625-foot track width ~ 22 feet wide in cross section

4. A static slope stability analysis was performed at the most critical location along the transport route as determined above using program UTEXAS4 and Spencer's method to obtain the short term static factor of safety with transporter loading. The section analyzed, with selected effective strength soil properties from Table 8-1 and location of transporter load, are shown in Figure 8-3. It is conservatively assumed that there is no water in the adjacent Discharge Canal but that clay and sand layers are saturated to elevation 6 (normal ground water level as described in Assumption 3). The resulting factor of safety of 1.7 is listed in Table 8-3. UTEXAS4 input and selected output files are found in Attachment B. All files are also included on the enclosed CD and are listed in Table 8-3.

5. The slope stability computations were repeated for the slide mass having the lowest static factor of safety by incrementally increasing the horizontal pseudostatic acceleration to determine the yield acceleration, k_y, that reduced the factor of safety of the slide mass to 1.0. Yield accelerations were computed using a two-stage approach in UTEXAS4, wherein normal stresses along the failure plane are first calculated under static pre-earthquake conditions and are then held constant during

application of the horizontal pseudostatic acceleration to estimate the undrained shear strengths during transient earthquake loading. Dynamic (undrained) soil strengths are listed in Table 8-1. As shown on Figure 8-3 and listed in Table 8-3, the resulting yield acceleration for a safety factor of 1.001 is 0.84. UTEXAS4 input and selected output files are found in Attachment B. All files are also included on the enclosed CD and are listed in Table 8-3.

6. Prior to performing finite element analyses, each horizontal component of the surface ground motion provided (White, 2002c) was rotated to the direction of the cross section. Seismic response due to the vertical component of ground motions was not considered in this analysis (Assumption 7). The amount of rotation was determined by calculating the difference between the azimuth of the cross section as shown on Figure 8-1 and the azimuth of the primary source of the ground motions (the Bay Entrance fault, from GEO.HBIP.02.07) as determined in GEO.HBIP.02.07. For section C-C', the difference between its azimuth of N 84° E and the fault azimuth of N 7° W is 264°.

The rotated component along the section is the sum of the projections of the fault normal and fault parallel components along the direction of the section. The formulation is as follows:

$CC' = F_P \cos(\Phi) + F_N \sin(\Phi)$

where F_P and F_N are fault parallel and fault normal components of the acceleration time histories, CC' is the component along the section at each time step, and Φ is the difference between the orientation of the section and the fault. Calculations of rotated components were performed in Excel spreadsheets. Excerpts of the spreadsheets along with related time history input and output are found in Attachment C. All files are also included on the enclosed CD and are listed in Table 8-6. The spreadsheets are verified by the following hand check from SET1ROT.XLS (page 4 of Attachment C):

at +0.000 seconds, set 1 FN = - 0.229294E-03 and FP = 0.846349E-04

Then for section C-C' with Φ = 264 degrees,

CC' = 0.846349E-04 · cos (264) + - 0.229294E-03 · sin (264) = 2.19191E-04 *checks*

Then a rigid block Newmark-type analysis was performed with each rotated surface ground motion and the yield acceleration for the critical slide mass determined in

step 5, above, using program DEFORMP. The positive direction of each ground motion component (south for fault parallel and west for fault normal) was obtained from GEO.HBIP.02.07. Calculated displacements are summarized in Table 8-4. The two ground motions selected in GEO.HBIP.02.07 (sets 1 and 3), were selected as representative of the range of displacements for further finite element analyses. All DEFORMP input and output files are included on the enclosed CD and are listed in Table 8-6. Excerpts of these files are not attached, as they are similar to those found in Attachment G. Earthquake motions input at the base of the section were developed from the surface ground motions provided by PG&E (White, 2002c) and preliminary Newmark analysis.

7. Earthquake motions input at the base of the section were developed from the rotated surface ground motions determined in step 6, above. Plots of the rotated surface ground motions are shown on Figures 8-5 and 8-6. The surface motions were deconvolved to approximately 85 feet below ground level using program SHAKE (Geomatrix version) and the dynamic properties for layers 1, 2, 3, and 4 listed in Table 8-2, as modified to obtain a "stiff soil" velocity profile (1.22 times velocities or 1.5 times k_{2max} values in Table 8-2 as described in Input 12) to obtain the motions at depth for use in QUAD4MU analyses. Modulus reduction and damping curves were obtained from GEO.HBIP.02.07 as described in Input 6. The base was modeled as elastic half-space with a shear wave velocity obtained from Table 8-2. To minimize numerical difficulties encountered in the SHAKE runs as a result of the artificially high energy in the high frequency range of the surface motions, a frequency cutoff of 2.5 Hz was applied during the deconvolution. A second SHAKE deconvolution run was then performed, fixing the soil properties as obtained from the final iteration of the first run, increasing the frequency cutoff applied in the first run to 6 Hz, to obtain the motions at depth for use in QUAD4MU analyses. SHAKE input and selected output files are found in Attachment D. All files are also included on the enclosed CD and are listed in Table 8-6.

8. The earthquake-induced seismic coefficient time histories (and their peak values k_{max}) for the critical slide mass were computed using a two-dimensional dynamic finite element analysis program QUAD4MU that is an updated version of program QUAD4M. The program uses equivalent linear strain-dependent modulus and damping properties and an iterative procedure to estimate the non-linear strain-

dependent soil properties. The time-step analysis incorporates a Rayleigh damping approach and allows for variable damping in different elements. The option of computing the seismic coefficient time history of a sliding mass in QUAD4M was modified in QUAD4MU and this option was verified in the calculation package GEO.DCPP.01.34, rev. 4.

The QUAD4M analyses reported in GEO.HBIP.01.08, rev. 0 were repeated in this revision using QUAD4MU. The QUAD4MU analyses were performed at the cross section analyzed using the dynamic properties summarized in Table 8-2 from step 3, above, the velocity profile as modified to obtain a "stiff soil" in step 7, above, and the earthquake motion at the base derived in step 7, above. A finite element representation of the site is shown on Figure 8-4. It includes the potential slide mass having the minimum factor of safety and extends from the ground surface down into the sand layer at a depth of about 85 feet below ground surface. The base of the model is in the dense sand layer and the half-space properties were set the same as in the SHAKE analyses performed in step 7, above. QUAD4MU input and selected output files are found in Attachment E. All files are also included on the enclosed CD and are listed in Table 8-6.

9. The seismic coefficient time history of the critical slide mass was output from the QUAD4MU analysis. Plots of the seismic coefficient time histories for each input ground motion are shown in Figures 8-5 and 8-6.
10. The surface ground motion calculated at one surface node (76) near the critical section was obtained from QUAD4MU output. This node was selected because it is in the "free field" and can be compared with the input motion in SHAKE (step 7 above) to assess the reasonableness of the QUAD4MU analysis results. The response spectra for the nodal point and input time histories were calculated using program SPECTRAD. Excerpts of SPECTRAD input and output files are found in Attachment F. All files are also included on the enclosed CD. The response spectra are plotted in Figures 8-7 and 8-8. It can be seen that the nodal point spectra conservatively envelope the input time history spectra, providing high confidence that QUAD4MU response calculations are conservative.
11. Newmark displacement analyses, using DEFORMP, were performed to determine the earthquake-induced permanent displacements of the critical section. The analyses utilize the seismic coefficient time histories as calculated in step 9, above,

and the yield acceleration of the critical slide mass as calculated in step 3, above. Results of the Newmark displacement analyses, shown graphically on Figure 8-9 and 8-10, are plotted as values of calculated displacement for ratios of k_y to k_{max}. For ground motion set 1 and a yield acceleration of 0.84, computed displacements range from 2.6 to 4.7 feet (Figure 8-9). For ground motion set 3, computed displacements range from 2.6 to 9.0 feet (Figure 8-10). Values of computed displacement for each ground motion are listed in Table 8-5. The average displacement for the full range of time-histories used is 4.7 feet. DEFORMP input and selected output files are included in Attachment G. All files are included in the enclosed CD and listed in Table 8-6.

10.0 RESULTS AND CONCLUSIONS

This calculation package has estimated static stability and earthquake-induced permanent displacements of the most critical potential slide mass identified along the proposed HBIP transport route. Results of short-term static stability analyses listed in Table 8-3 indicate the safety factor against sliding with transporter load is 1.7. Results of Newmark-type displacement analyses, listed in Table 8-5, indicate a range of potential displacements of the critical slide mass at the selected transport route location from 2.6 to 4.7 feet for ground motion set 1, and from 2.6 to 9.0 feet for ground motion set 3. The average displacement for the full range of time-histories used is 4.7 feet.

11.0 LIMITATIONS

There are no limitations on the use of the calculation results.

12.0 IMPACT EVALUATION

The results of the displacements presented in Section 10 do not impact other Geosciences calculations.

13.0 REFERENCES

1. ASCE, 1986, Seismic Analysis of Safety-Related Nuclear Structures and Commentary on Standard for Seismic Analysis of Safety Related Nuclear Structures, American Society of Civil Engineers, September.

2. GEO.DCPP.01.25, Determination of seismic coefficient time histories for potential sliding masses along cut slope behind ISFSI pad, rev. 2
3. GEO.DCPP.01.34, Verification of computer code QUAD4MU, rev. 4
4. GEO.DCPP.01.35, Verification of computer code DEFORMP, rev. 2
5. GEO.HBIP.02.02, Determination of liquefaction potential at HBIP ISFSI site, rev. 0.
6. GEO.HBIP.02.05, Development of spectrum compatible time histories for the HBIP ISFSI, rev. 0.
7. GEO.HBIP.02.07, Determination of potential earthquake-induced displacements of critical slides at HBIP ISFSI site, rev. 1.
8. GEO.HBIP.02.09, Verification of computer program UTEXAS4, rev. 0
9. Geosciences Work Plan GEO 2002-03, "Development of Slope Stability Calculations for the Humboldt Bay ISFSI, rev. 0.
10. Makdisi, F., and Seed, H.B., 1978, Simplified Procedure for Estimating Dam and Embankment Earthquake-Induced Deformations, Journal of the Geotechnical Engineering Division, ASCE, Vol. 104, No. GT7, July, pp. 849-867.
11. Newmark, N.M., 1965, Effects of earthquakes on dams and embankments: Geotechnique, v. 15, no. 2, p. 139-160.
12. Section 4, Site Geology, Humboldt Bay ISFSI Project Seismic Hazards Analysis, Rev. 0, dated 16 September 2002, of Technical Report TR-HBIP-2002-01.
13. White, R., 2002a, letter from Robert White to Faiz Makdisi, Re: proposed transport route for HBPP ISFSI, dated 19 April 2002, with attached site map.
14. White, R., 2002b, letter from Robert White to Faiz Makdisi, Re: transmittal of boring logs from previous investigations at HBPP, dated 1 May 2002, with attachments.
15. White, R., 2002c, letter from Robert White to Faiz Makdisi, Re: transmittal of preliminary design surface ground motions for use in response analyses, dated 29 July 2002, with enclosed CD.
16. White, R., 2002d, letter from Robert White to Faiz Makdisi, Re: excerpt from Humboldt Bay Power Plant December 1985 TPCA HAR, dated 15 November 2002.
17. White, R., 2002e, letter from Robert White to Faiz Makdisi, Re: transmittal of final approved time histories for Humboldt Bay ISFSI Project slope stability analyses, dated 27 November 2002.

18. Yan, Liping, Neven Matasovic, and Edward Kavazanjian, Jr., 1996, Seismic response of a block on an inclined plane to vertical and horizontal excitation acting simultaneously, Proceedings, 11th ASCE Conference of Engineering Mechanics, Fort Lauderdale, FL, Volume 2, pp. 1110-1113.

14.0 ATTACHMENTS

A. Geosciences transmittals (11 pages)

White, R., 2002a, letter from Robert White to Faiz Makdisi, Re: proposed transport route for HBPP ISFSI, dated 19 April 2002, with attached site map

White, R., 2002b, letter from Robert White to Faiz Makdisi, Re: transmittal of boring logs from previous investigations at HBPP, dated 1 May 2002 (without attachments).

White, R., 2002c, letter from Robert White to Faiz Makdisi, Re: transmittal of preliminary design surface ground motions for use in response analyses, dated 29 July 2002 (without enclosed CD).

White, R., 2002d, letter from Robert White to Faiz Makdisi, Re: excerpt from Humboldt Bay Power Plant December 1985 TPCA HAR, dated 15 November 2002.

White, R., 2002e, letter from Robert White to Faiz Makdisi, Re: transmittal of final approved time histories for Humboldt Bay ISFSI Project slope stability analyses, dated 27 November 2002.

B. UTEXAS4 input and excerpts of output files for static and dynamic stability analyses (12 pages)

C. EXCEL spreadsheet excerpts and related excerpts of time histories for rotations (9 pages)

D. SHAKE input and excerpts of output files to obtain motion at base of QUAD4MU section (32 pages)

E. QUAD4MU input and excerpts of output files for response analyses (21 pages)

F. SPECTRAD input and excerpts of output files for calculating response spectra of time histories (10 pages)

G. DEFORMP input and excerpts of output for calculation of displacements (9 pages)

H. .CD-ROM table of contents

15.0 LIST OF TABLES

16.0 LIST OF FIGURES

17.0 ENCLOSURE

CD labeled "GEO.HBIP.02.08, rev. 1, 7/18/2003," containing the files listed in Tables 8-3, 8-4, and 8-6 (all ASCII files unless otherwise noted). The CD is located with this calculation in Geosciences' project-designated file cabinets. The CD table of contents is included in Attachment H.

TABLE 8-1

MATERIAL PROPERTIES FOR POST-EARTHQUAKE STABILITY ANALYSES

Layer No. (Fig. 8-3)	Material	Unit Weight		Effective Strength		Undrained Strength	
		γ_{moist} (pcf)	γ_{sat} (pcf)	Cohesion c' (psf)	Friction Angle ϕ' (degree)	Cohesion c (psf)	Friction Angle ϕ (degree)
5	Stiff Sandy Clay	125	125	0	30	900	0
3,4	Very Stiff Clay	123	123	0	30	2000	0
2	Dense to Very Dense Silty Sand	125	128	0	37	1500*	37*
1	Hard Silt and Silty Clay	128	128	0	30	3000	0

* Undrained strength of dense sand is limited to 9 ksf.

Source: Table 7-2 of Calculation GEO.HBIP.02.07 (except layer 5)

TABLE 8-2

Revised Shear Wave Velocity Profile for Site Response Analysis
(based on I.M. Idriss Interpretation on May 24, 2002)

Layer No. *	Depth (ft)	Description	Density (pcf)	Shear Wave Velocity (fps)	K_{2max}	Modulus Reduction and Damping Curves
1-a (5)	0-15	Silty Clay	125	750	--	Vucetic and Dobry (1991) PI=15
1-b (5)	15-20	Silty Clay	125	750		Vucetic and Dobry (1991) PI=15
1-c (3)	20-25	Silty Clay	125	1,000		Vucetic and Dobry (1991) PI=15
2-a (2)	25-30	Sand with Gravel	130	1,000	80	EPRI (1993) Depth = 20-50 feet
2-b (2)	30-40	Sand with Gravel	130	1,150	100	EPRI (1993) Depth = 20-50 feet
2-c (2)	40-50	Sand with Gravel	130	1,150	80	EPRI (1993) Depth = 20-50 feet
3 (1)	50-60	Silty Clay	130	1,500	--	Vucetic and Dobry (1991) PI=15
4-a	60-90	Sand with Gravel	130	1,500	125	EPRI (1993) Depth = 50-120 feet
4-b	90-135	Sand	130	1,750	130	EPRI (1993) Depth = 50-120 feet
5	135-150	Sand with Gravel	130	2,000	140	EPRI (1993) Depth = 120-250 feet
6	150-215	Silty Clay	130	1,550	--	Vucetic and Dobry (1991) PI = 15
7	215-260	Silty Sand	130	1,650	100	EPRI (1993) Depth = 120-250 feet
8a	260-320	Gravelly Sand	130	2,000	120	EPRI (1993) Depth = 250-500 feet
8b	320-400	Silty Sand	130	1,800	100	EPRI (1993) Depth = 250-500 feet
9	400-450	Silty Sand**	130	1,900	--	EPRI (1993) Depth = 250-500 feet
10	450-500	Silty Sand**	130	2,000	--	EPRI (1993) Depth = 250-500 feet
11	500-600	Silty Sand**	130	2,100	--	EPRI (1993) Depth = > 500 feet
12	600+	Half space	135	5,000	--	

Notes: * Layer numbers in parentheses are those assigned in Figure 8-3 and listed in Table 8-1 for stability analyses.
** Extrapolated from bottom of boring.
Layers 2b and 2c k_{2max} values modified slightly to 90 and 85, respectively, in analyses to be consistent with modifications to the shear wave velocities.

Table 8-3

Results of slope stability analyses for Section C-C'

Section	long term static factor of safety	yield acceleration, k_y	UTEXAS4 static input/output files	UTEXAS4 dynamic input/output files
C-C'	1.73	0.84	transport3.txt transport3.out	transport3(dyn).txt transport3(dyn).out

All files are ASCII text and are found on the CD enclosed with the calculation. Excerpts are found in Attachment B.

Table 8-4

Permanent displacement versus yield acceleration assuming rotated surface motion equal to seismic coefficient time history

					computer input/output files **			
ky				Displacement (ft)	spreadsheet	rotated motion	DEFORMP input	DEFORMP output
Section C-C					(*.xls)	(*.prn)	(*.inp)	(*.dat)
0.84	Set 1	264°	Positive	5.7	set1rot	s1cc	s1cp	s1cp
			Negative	5.5	set1rot	s1cc	s1cn	s1cn
	Set 2	264°	Positive	2.1	set2rot	s2cc	s2cp	s2cp
			Negative	8.5	set2rot	s2cc	s2cn	s2cn
	Set 3	264°	Positive	1.7	set3rot	s3cc	s3cp	s3cp
			Negative	10.8	set3rot	s3cc	s3cn	s3cn
	Set 4	264°	Positive	1.4	set4rot	s4cc	s4cp	s4cp
			Negative	9.8	set4rot	s4cc	s4cn	s4cn

** All files on CD-ROM enclosed with calculation.
Spreadsheet (*.xls) files are Excel files. All others are ASCII text.

Table 8-5

Permanent Displacement versus Yield Acceleration (seismic coefficients from QUAD4MU)

Yield Acceleration, Ky			Kmax	Ky/Kmax	Displacement (ft)
ISFSI, Section C-C					
0.84	Set 1+	264°	1.79	0.47	2.6
	Set 1 -	264°	1.86	0.45	4.7
	Set 3 +	264°	2.05	0.41	9.0
	Set 3 -	264°	1.79	0.47	2.6

TABLE 8-6
List of files for ground motion response and displacement analyses

ROTATED MOTIONS (excerpts in Attachment C)

	Section C-C'		
	SET 1	SET 3	
Input (.ACC)	SET1_FP SET1_FN_FLING_BC	SET3_FP SET3_FN_FLING_BC	
Output	SET1ROT.XLS S1CC.AC8	SET3ROT.XLS S3CC.AC8	rotated surface motion

SHAKE (excerpts in Attachment D)

	Section C-C'		
	SET 1	SET 3	
Input	TR1C.INP S1CC.AC8 TR1CL.INP	TR3C.INP S3CC.AC8 TR3CL.INP	rotated surface motion
Output	TR1C.OUT TR1C.PUN TR1CL.OUT TR1CL.PUN	TR3C.OUT TR3C.PUN TR3CL.OUT TR3CL.PUN	rotated outcrop motion

QUAD4MU (excerpts in Attachment E)

	Section C-C'		
	SET 1	SET 3	
Input	TR1C.Q4I TR1CLO25 HBSOILNW.DAT	TR3C.Q4I TR3CLO25 HBSOILNW.DAT	rotated outcrop motion
Output	TR1C.Q4O TR1C00.QSC	TR3C.Q4O TR3C00.QSC	seismic coeff. motion
Acceleration Time History Outputs at Ground Surface (excerpts not attached)	TR1C00.Q4A TR1C01.Q4A TR1C02.Q4A TR1C03.Q4A TR1C04.Q4A TR1C05.Q4A TR1C06.Q4A	TR3C00.Q4A TR3C01.Q4A TR3C02.Q4A TR3C03.Q4A TR3C04.Q4A TR3C05.Q4A TR3C06.Q4A	node 51 node 76 node 101 node 765 node 821 node 961 node 1114

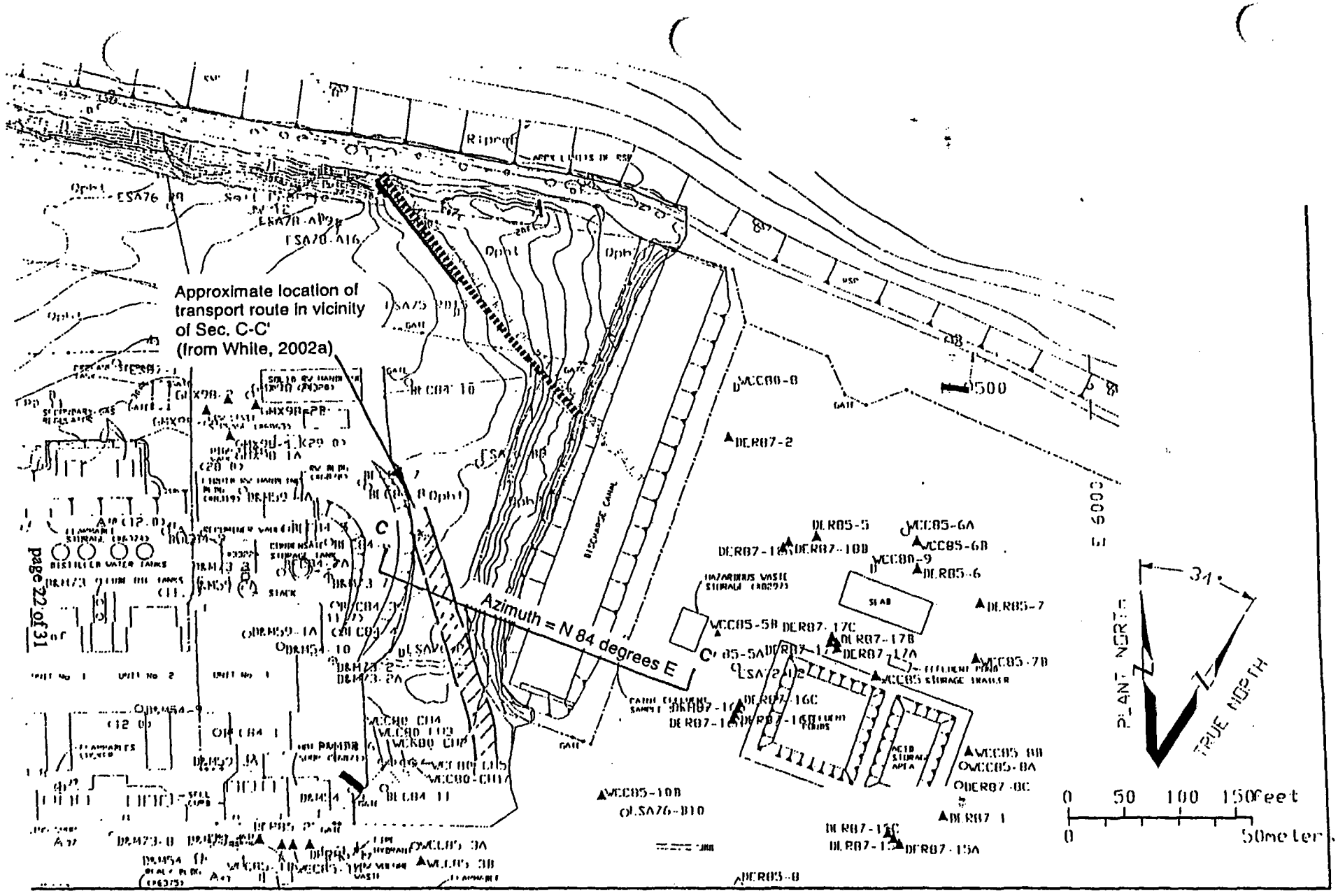
SPECTRAD (excerpts in Attachment F)

	Section C-C'		
	SET 1	SET 3	
Input	SPECTRA1.INP SPECTRA2.INP SPECTRA3.INP	SPECTRA1.INP SPECTRA2.INP SPECTRA3.INP	
Output	S1CC.050 TR1C00A. 050 TR1C01A. 050	S3CC.050 TR3C00A. 050 TR3C01A. 050	rotated surface spectra node 51 at free field node 76 at free field

DEFORMP (excerpts in Attachment G)

	Section C-C'	
	SET 1	SET 3
Input	TR1CSP.INP TR1CSN.INP	TR3CSP.INP TR3CSN.INP
Output	TR1CSP.DAT TR1CSN.DAT	TR3CSP.DAT TR3CSN.DAT

Note: All files are ASCII text included on the CD-ROM enclosed with the calculation.



Note: Base map from Fig. 4-14 of Section 4 of TR-HBIP-2002-01.

Figure 8-1. Site and boring location plan with proposed ISFSI transport route.

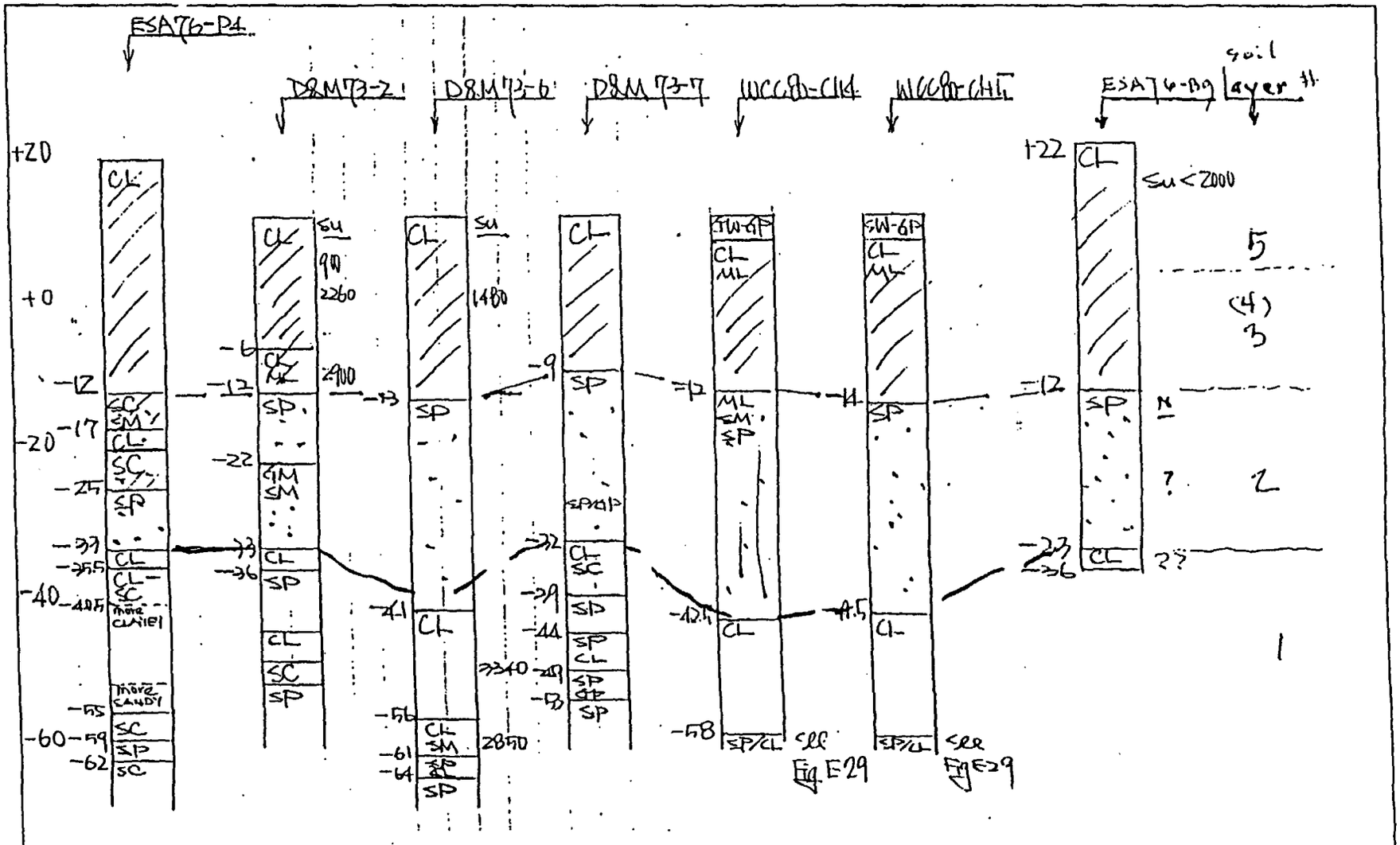


Figure 8-2. Fence diagram of borings in vicinity of Section C-C' along transport route.

SEISMIC COEFFICIENT = 0.84g

NO.	DESCRIPTION	UNIT WEIGHT	SHEAR STRENGTH	PORE PRESSURE
1	Silty clay	128	Cohesion: 3000.0 Friction angle: 0	Piezometric Line no. 1
2	Clayey sand	128	2-Stage Linear Intercept (Kc = 1): 1500.00 Slope (Kc = 1): 37.00 Intercept (Kc = Kf): 1500.00 Slope (Kc = Kf): 37.00	Piezometric Line no. 1
3	Silty sandy clay (sat)	125	Cohesion: 2000.0 Friction angle: 0	Piezometric Line no. 1
4	Silty sandy clay (unsat)	125	Cohesion: 2000.0 Friction angle: 0	None
5	Silty sandy clay	125	Cohesion: 900.0 Friction angle: 0	None

Factor of safety: 1.001
Side force Inclination: -28.46 degrees

180
150
120
90
60
30
0
-30
-60
-350
-300
-250
-200
-150
-100
-50
0

Date: Wed Sep 11 2002

Filename: TRANSPORT3 (DYN). OUT

(Stage 2)

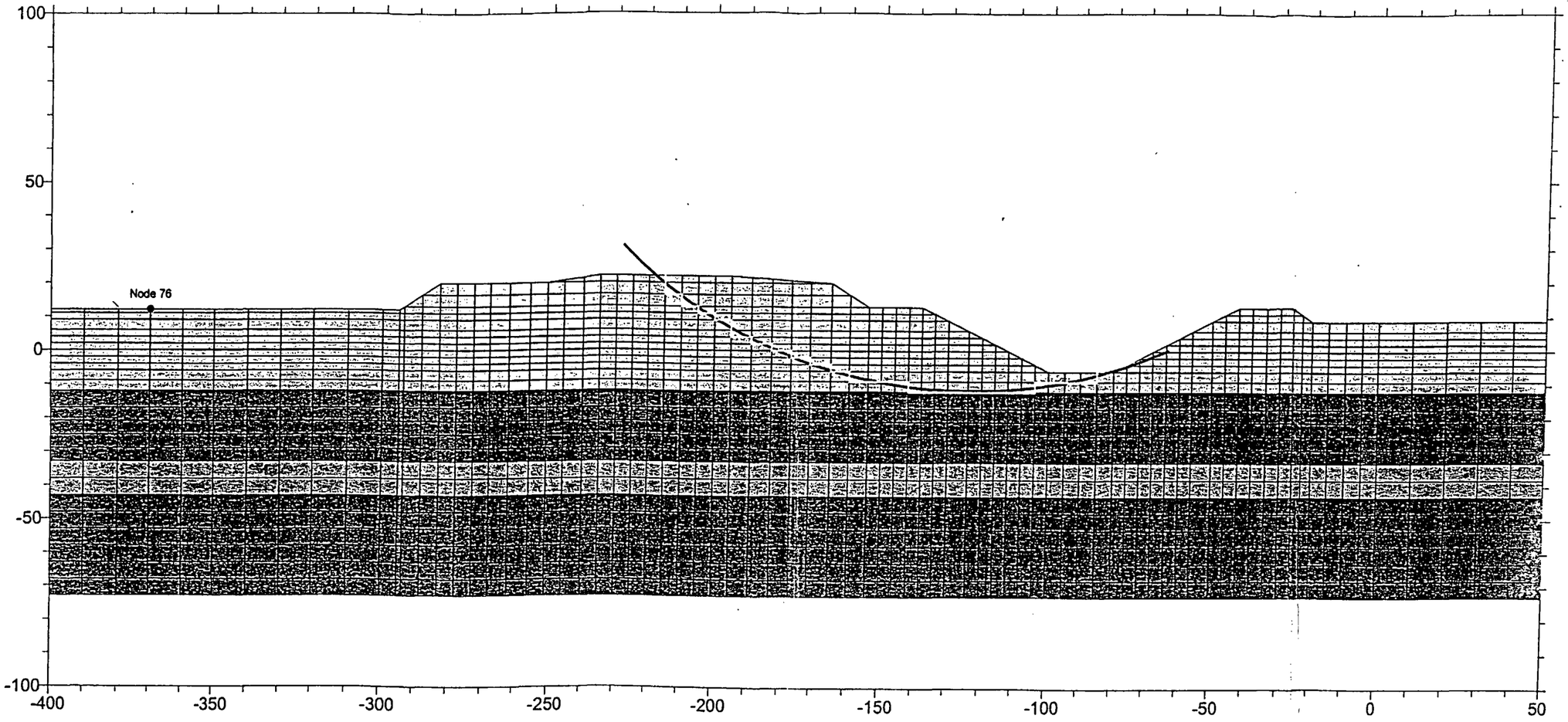


Figure 8-4. Finite element mesh and slide mass having minimum factor of Safety for Section C-C'.

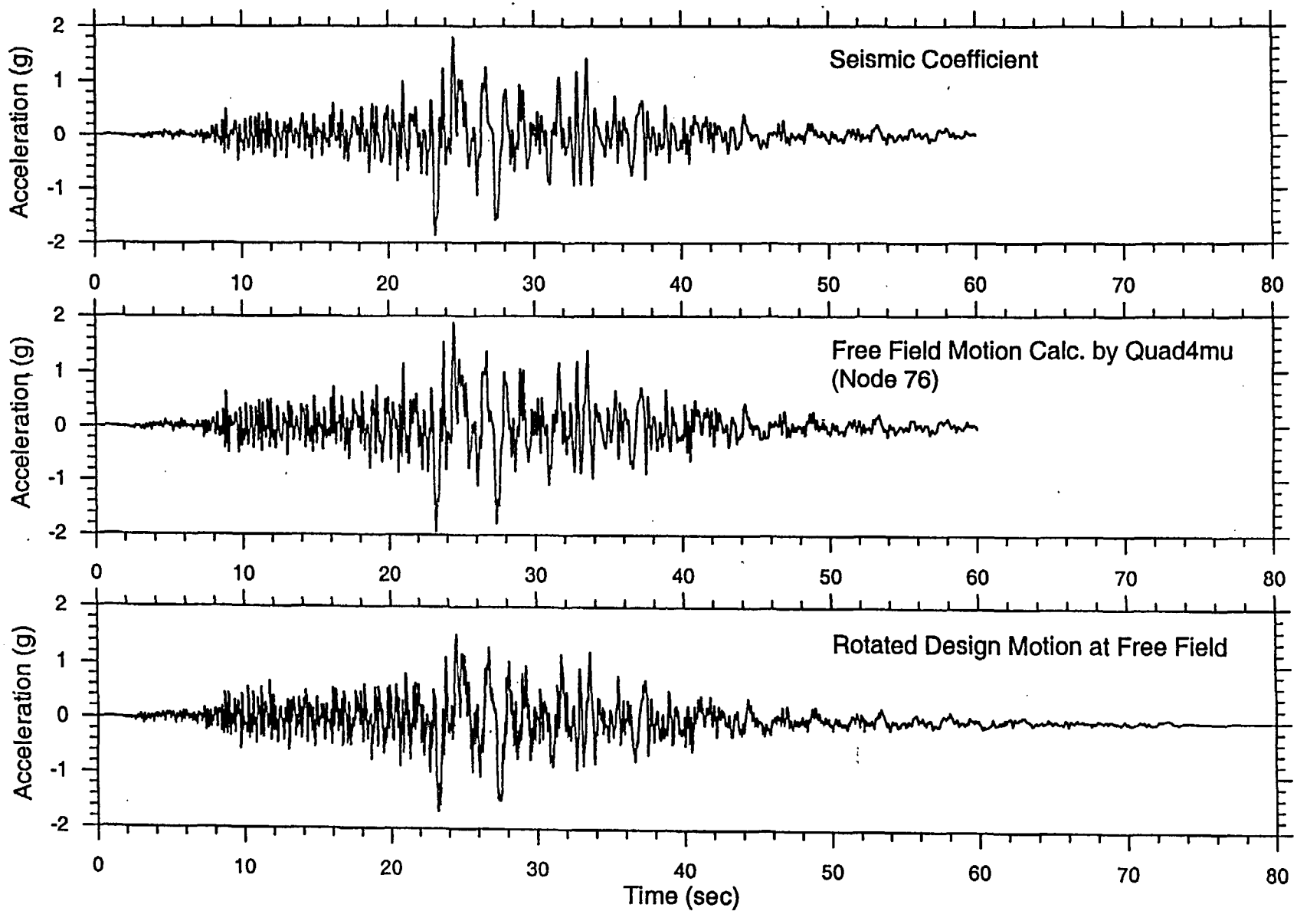


Figure 8-5. Time Histories, Section C-C', Set 1 Ground Motion.

tr1cc.grf

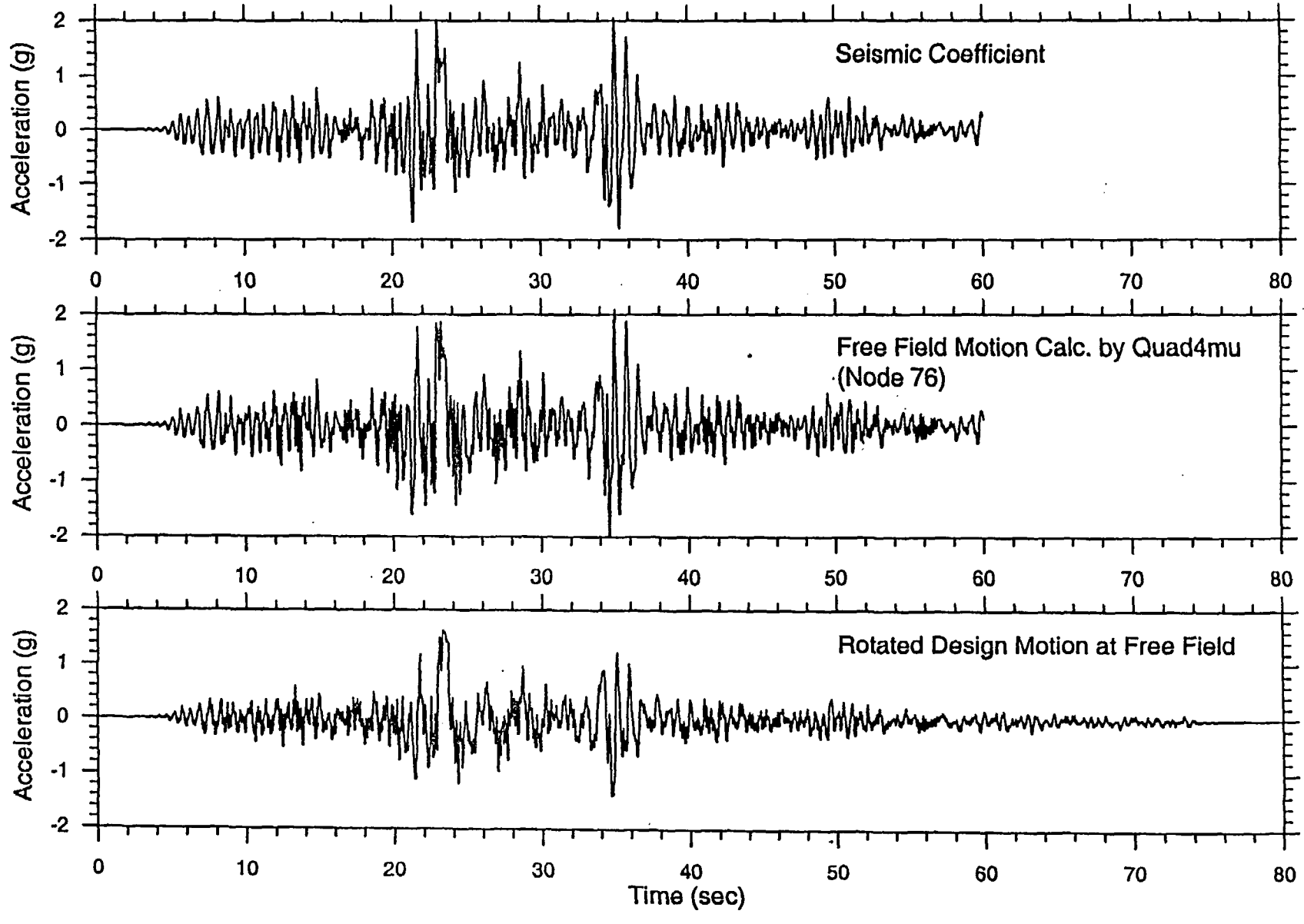


Figure 8-6. Time Histories, Section C-C', Set 3 Ground Motion.

tr3cc.grf

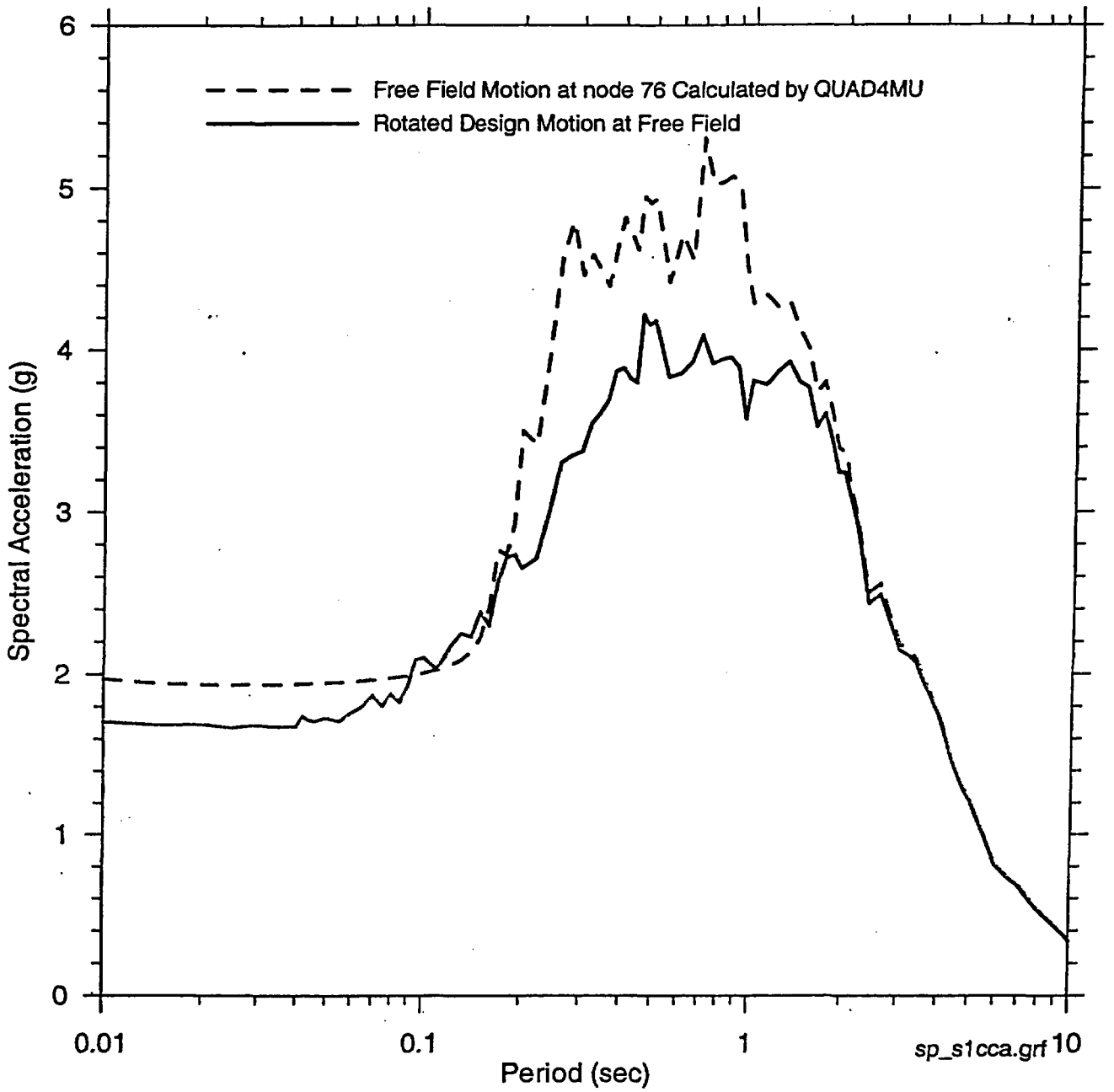


Figure 8-7. Spectral Accelerations (5% Damped), Section C-C', Set 1 Ground Motion.

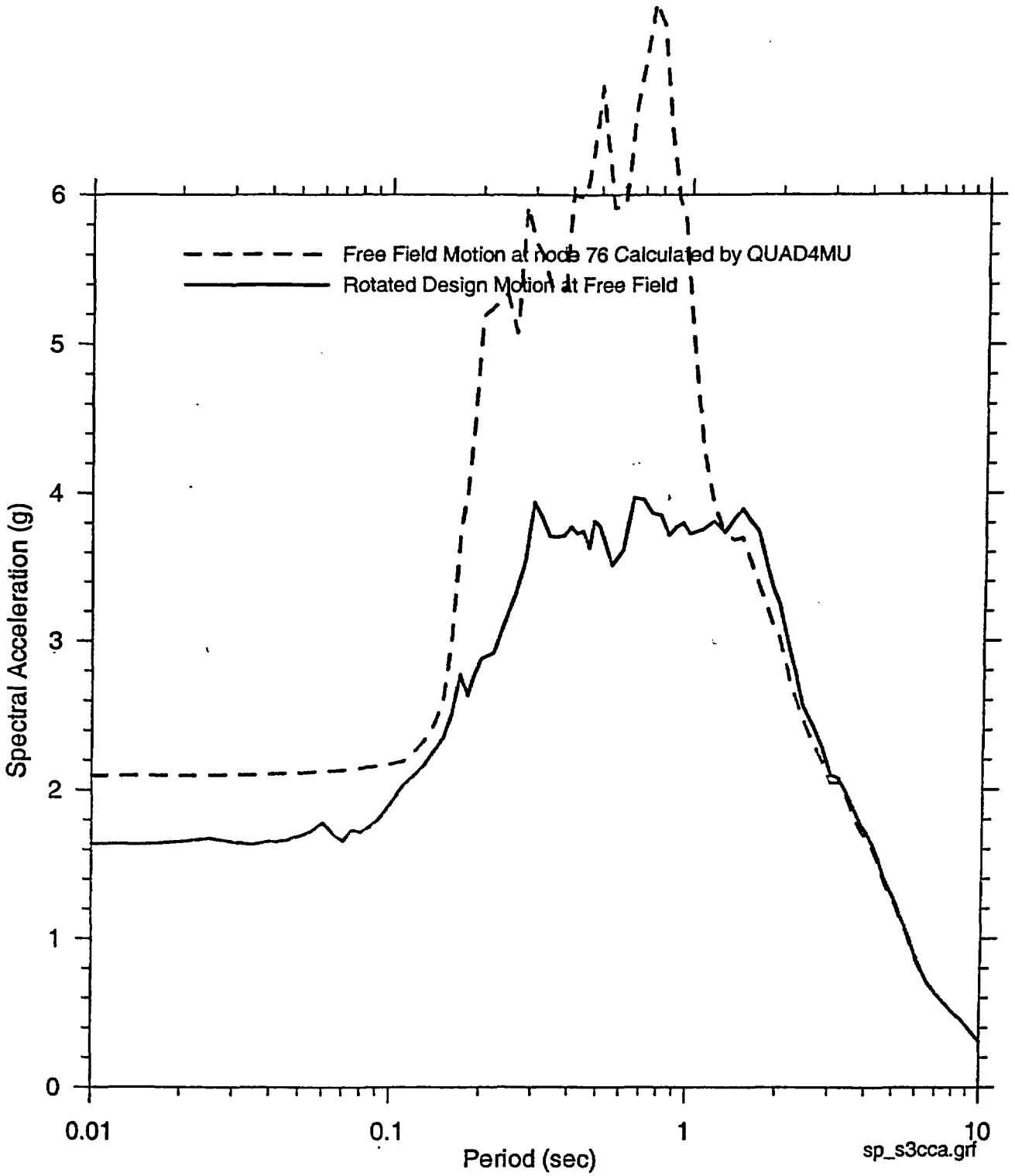


Figure 8-8. Spectral Accelerations (5% Damped), Section C-C', Set 3 Ground Motion.

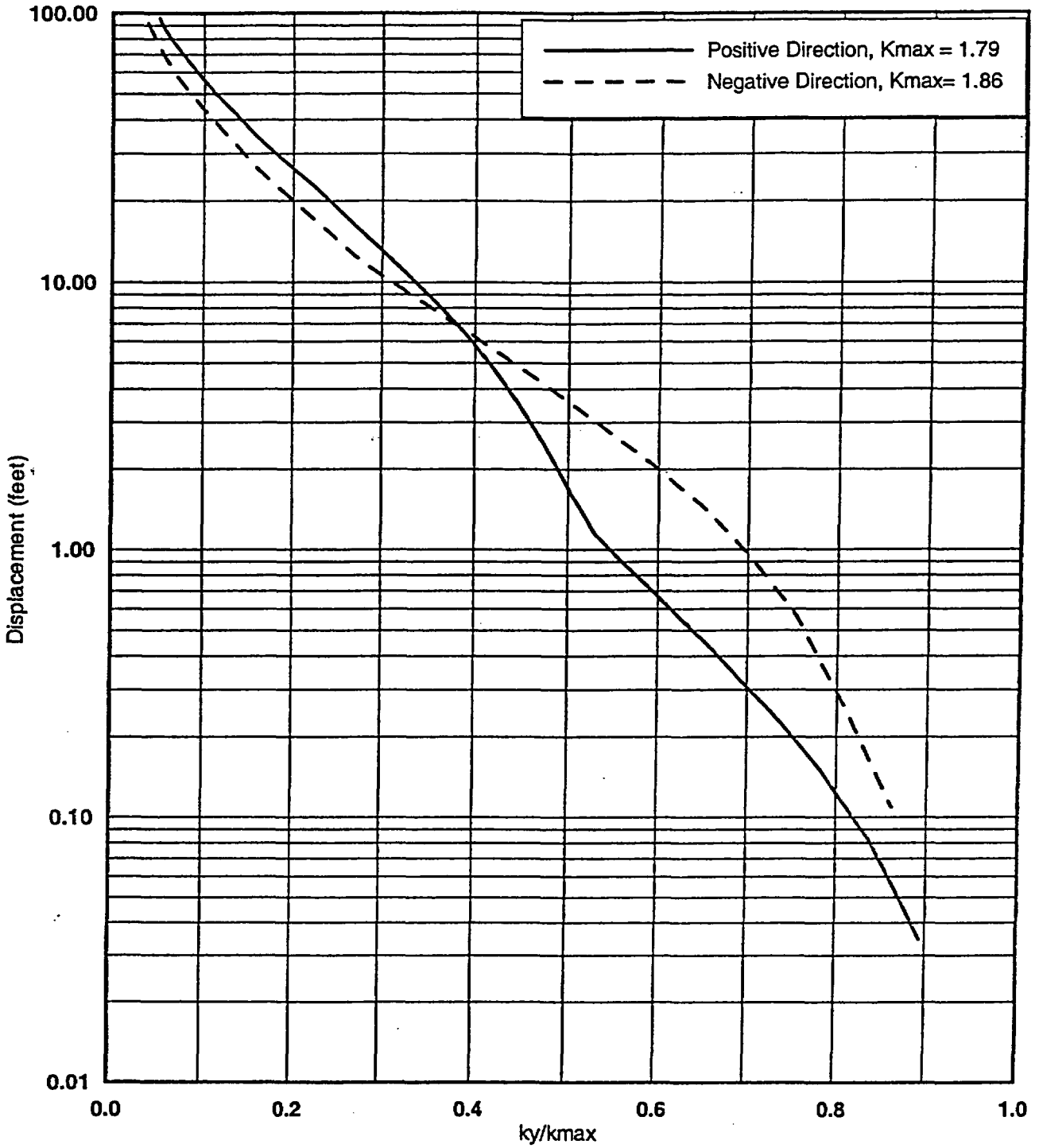


Figure 8-9. Permanent Displacement versus Yield Acceleration
Section C-C', Set 1 Ground Motion

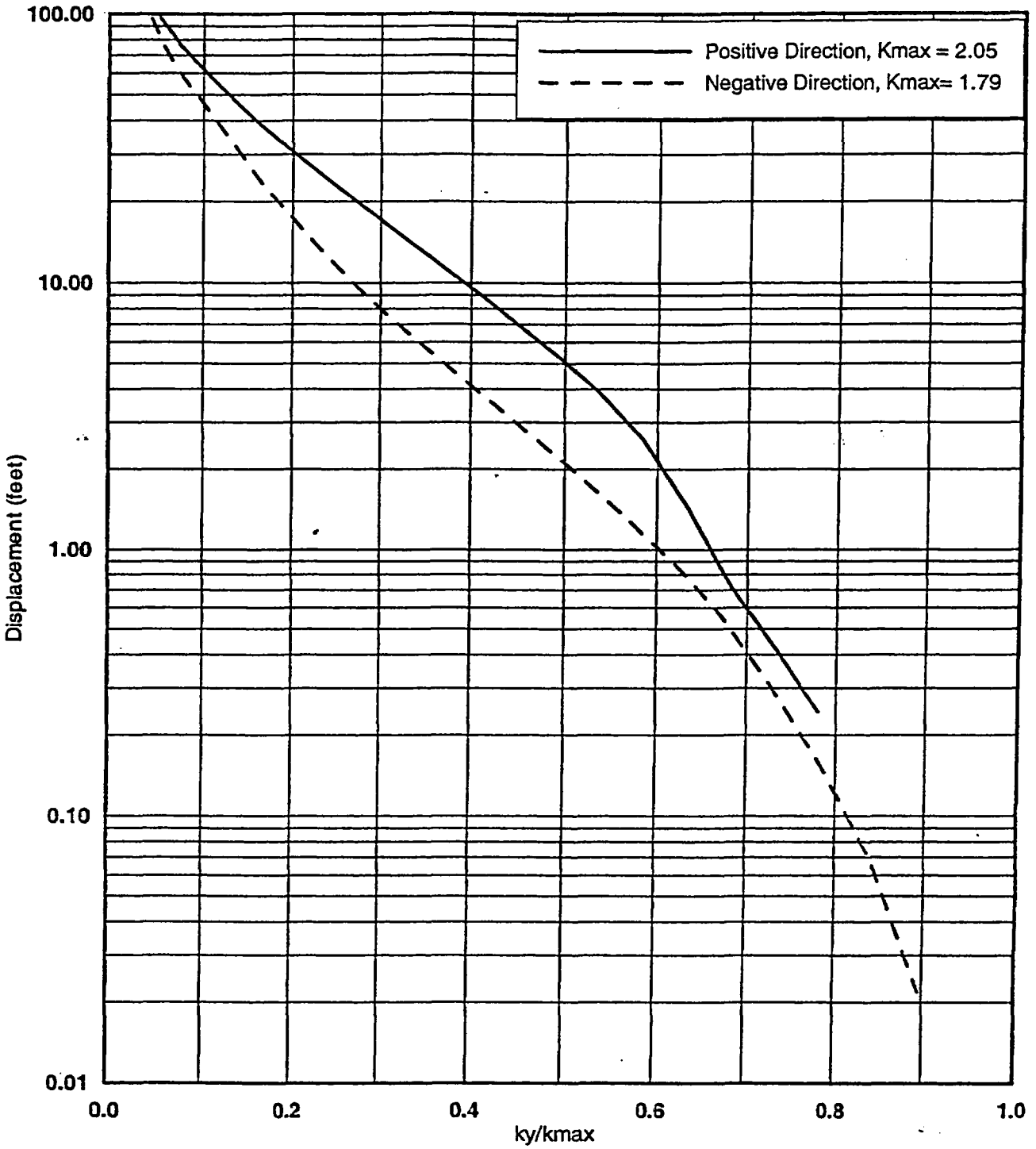


Figure 8-10. Permanent Displacement versus Yield Acceleration
Section C-C', Set 3 Ground Motion

Attachment A

Transmittals

(see Attachments section for list of transmittals)

Pacific Gas and Electric Company

Geosciences
245 Market Street, Room 418B
Mail Code N4C
P.O. Box 770000
San Francisco, CA 94177
415/973-2792
Fax 415/973-5778

FAIZ MAKDISI
GEOMATRIX CONSULTANTS
2101 WEBSTER STREET
OAKLAND, CA 94612

19 April 2002

Re: Proposed transport route for HBPP ISFSI

DR. MAKDISI:

As a followup to my letter to you dated 21 March 2002 regarding preparation of preliminary transport route stability calculations for HBPP ISFSI, please find attached one copy of a memo dated 28 March 2002 from Roy Willis to myself and attached figure showing the proposed transport route. Please use this figure to determine location of transporter load.

Also attached is a portion of a figure from an approved PG&E drawing showing the configuration of the discharge canal as constructed adjacent to the proposed transport route. Please use this figure, in conjunction with topography shown on the figure attached to Roy Willis' memo above, to construct the transport route cross section for stability analysis. As shown on the figure, the canal slopes were excavated at a slope of 2 horizontal to 1 vertical to a depth of elevation –6 (MLLW). The width of the canal bottom is shown as 20 feet.

If you have any questions, please call.

Rob White

ROBERT K. WHITE

Attachments

cc: Larry Pulley (w/ attachments)

Memorandum

Date: March 28, 2002 File #: 72.10.05

To: Robert White

From: Roy Willis, Project Manager

Subject: Humboldt Bay ISFSI Project
Transmittal of Transport Route Layout

PG&E *Pacific Gas and Electric Company*

Dear Rob,

Attached for your use in slope stability investigations concerning the transport route for the Humboldt Bay ISFSI is a transport route layout showing two proposed alternatives.

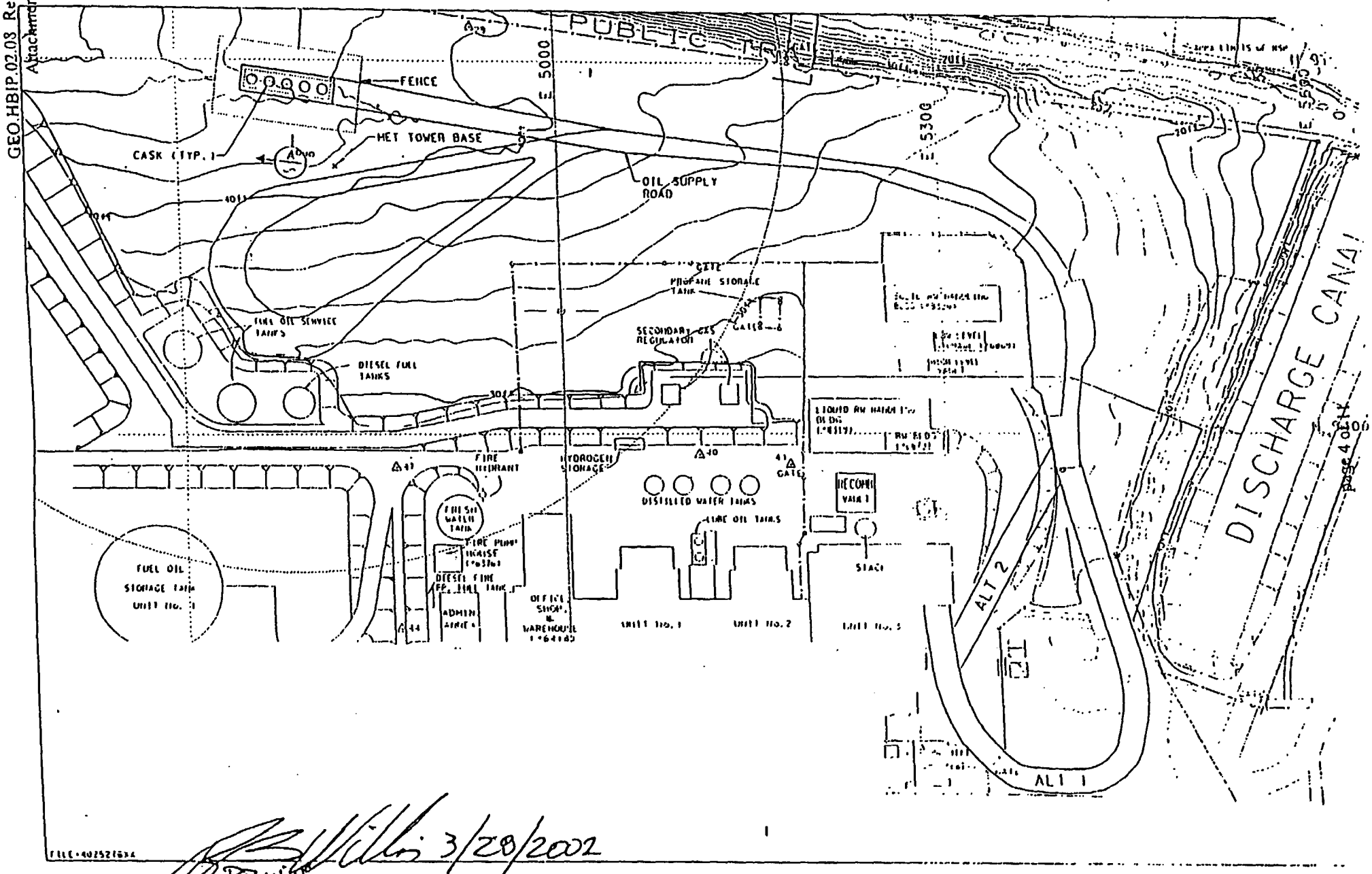
The existing roadway near the discharge canal is preferred (shown as Alt 1). This roadway is 20 feet wide, and is constrained by the canal on the east and the Unit 3 hillside on the west. The alternate route using a modified roadway inside the Unit 3 restricted area is the second choice (shown as Alt 2). The exact location of the connection of this route to the existing roadway is somewhat flexible, but would be within 20 feet of the plotted location due to the physical constraints of the site.

Please contact Mr. L. Pulley if you have any questions or need additional information on this matter.

Roy Willis
Project Manager
Humboldt Bay ISFSI Project

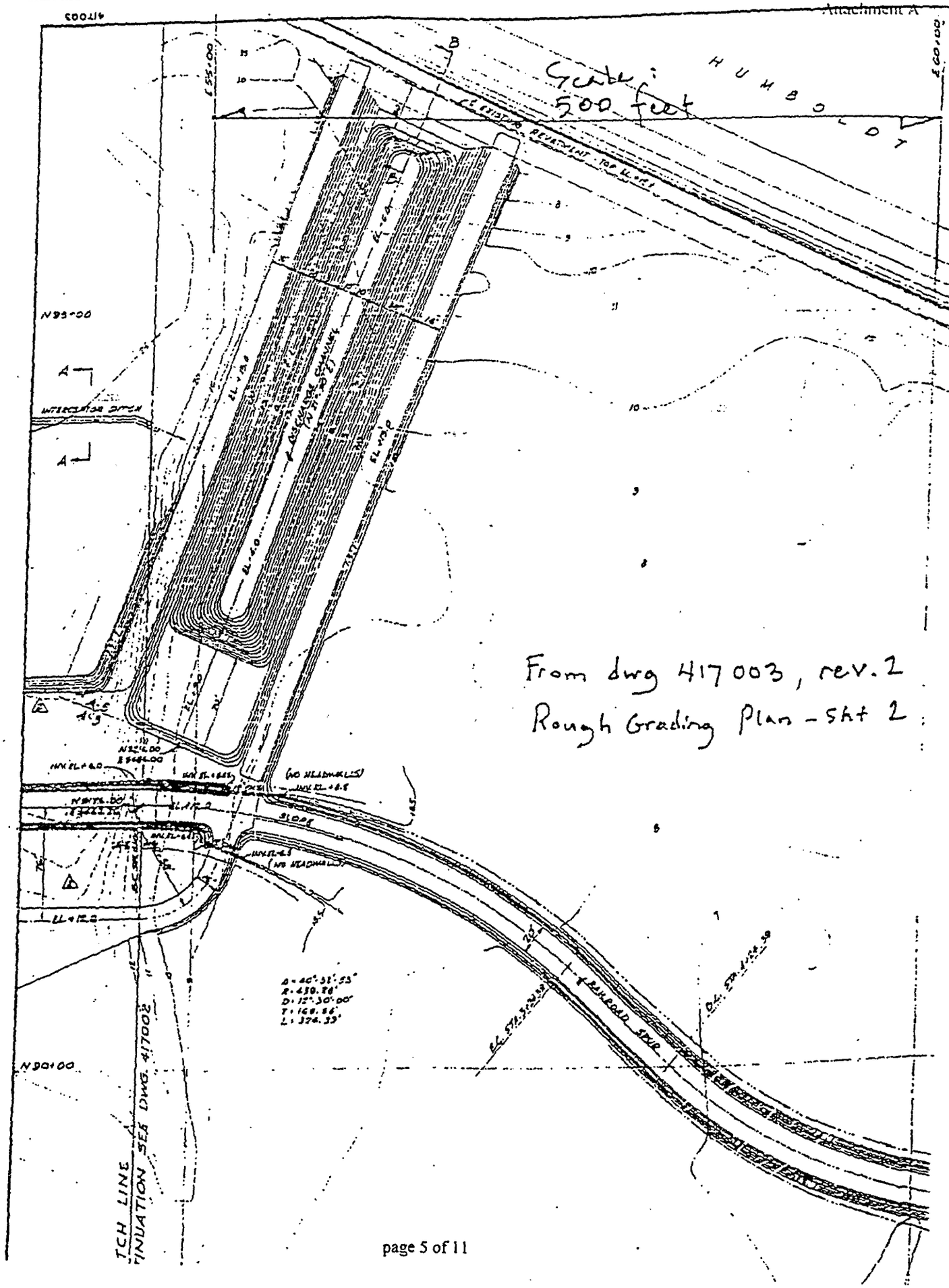
cc: LBPulley HBPP
HBIP File No. 72.10.05

GEO.HBIP.02.03 Rev. 0
Attachment A



RBWillis 3/20/2002

Humboldt Bay ISFSI Transport Route Alternatives. 3/28/2002


Scale: 500 feet
From dwg 417003, rev. 2
Rough Grading Plan - Sht 2
HUMBOLDT
TCH LINE
SEE DWG. 417002

Geosciences
245 Market Street, Room 418B
Mail Code N4C
P.O. Box 770000
San Francisco, CA 94177
415/973-2792
Fax 415/973-5778

FAIZ MAKDISI
GEOMATRIX CONSULTANTS
2101 WEBSTER STREET
OAKLAND, CA 94612

1 May 2002

Re: Transmittal of boring logs from previous investigations at HBPP

DR. MAKDISI:

Please find enclosed the following items:

- Logs for borings 1 through 10A performed in 1973, including boring log key, (14 pages total) from Dames and Moore report entitled "Evaluation of Liquefaction Potential, Humboldt Bay Power Power Plant, for the Pacific Gas and Electric Company," dated May, 1974 (cover of report preceeds boring logs).
- 2-page excerpt from boring P-4 performed in 1976, from Earth Sciences Associates report entitled "Humboldt Bay Power Plant Site, Geology Investigation, Appendix F III," dated 1976-1977 (cover of report preceeds boring log).
- Figure E-29 from Woodward-Clyde Consultants report entitled "Evaluation of the Potential for Resolving the Geologic and Seismic Issues at the Humboldt Bay Power Plant Unit No. 3, Appendixes," dated October 1, 1980 (cover of report preceeds figure).
- Logs for borings CH-4 (16 pages) and CH-5 (28 pages) summarized on Figure E-29, above. Originals of these logs are located in box 24521 at PG&E's Records Center.

Locations of these borings are shown on Figure 4-2 of the Humboldt Bay Power Plant ISFSI Site Seismic Hazards Analysis, Section 4.0, Site Geology, transmitted to me on 18 March 2002 by Bert Swan and John Wesling.

If you have any questions, please call.

Rob White

ROBERT K. WHITE

Attachments

Pacific Gas and Electric Company

Geosciences
245 Market Street, Room 418B
Mail Code N4C
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San Francisco, CA 94177
415/973-2792
Fax 415/973-5778

FAIZ MAKDISI
GEOMATRIX CONSULTANTS
2101 WEBSTER STREET
OAKLAND, CA 94612

29 July 2002

Re: Transmittal of preliminary ground motions for Humboldt ISFSI Project slope stability analyses

Dear Faiz:

Please find enclosed a CD with four sets of time histories (fault parallel and fault normal components) for use in Humboldt ISFSI slope stability analyses. These time histories are preliminary until otherwise noted, but you are authorized to proceed with their use in your analyses.

As described in the readme.txt file on the CD, the CD was assembled from the following sources:

fault parallel component of Set 1, Set 3, and Set 4
C:\hbpp\motions\7-24-02\Source\set1_fp.acc
C:\hbpp\motions\7-24-02\Source\set3_fp.acc
C:\hbpp\motions\7-24-02\Source\set4_fp.acc

fault parallel component of Set 2a
C:\hbpp\motions\7-26-02\Source\set2a_fp.acc

fault normal component with fling of Set 1, Set 2a, Set 3, and Set 4
C:\hbpp\motions\7-26-02\Source\set1_fn_fling_bc.acc
C:\hbpp\motions\7-26-02\Source\set2a_fn_fling_bc.acc
C:\hbpp\motions\7-26-02\Source\set3_fn_fling_bc.acc
C:\hbpp\motions\7-26-02\Source\set4_fn_fling_bc.acc

Let me know if you have any questions.

Robert White

ROBERT K. WHITE

Enclosure

cc: Larry Pulley w/o

Pacific Gas and Electric Company

Geosciences
245 Market Street, Room 4188
Mail Code N4C
P.O. Box 770000
San Francisco, CA 94177
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Fax 415/973-5778

FAIZ MAKDISI
GEOMATRIX CONSULTANTS
2101 WEBSTER STREET
OAKLAND, CA 94612

15 November 2002

Re: Excerpt from Humboldt Bay Power Plant December 1985 TPCA HAR

FAIZ MAKDISI:

Please find attached a 9-page excerpt from the Humboldt Bay Power Plant December 1985 Toxic Pits Cleanup Act Hydrogeologic Assessment Report for your use as needed in the preparation of slope stability calculations for the HBIP. The excerpt includes a discussion of water levels as determined from monitoring wells installed in the vicinity of the wastewater holding ponds located east of the discharge canal. Page 4-7, in particular, states that "water levels ... range between 4 and 7 feet below ground surface," and that "this zone appears to respond only slightly to tidal cycles."

If you have any questions regarding this attachment, please call.

Thanks.

ROB WHITE

Attachment

Pacific Gas and Electric Company

Geosciences
245 Market Street, Room 418B
Mail Code N4C
P.O. Box 770000
San Francisco, CA 94177
415/973-2792
Fax 415/973-5778

FAIZ MAKDISI
GEOMATRIX CONSULTANTS
2101 WEBSTER STREET
OAKLAND, CA 94612

27 November 2002

Re: Transmittal of final approved time histories for Humboldt ISFSI Project slope stability analyses

Dear Faiz:

Please find enclosed a CD with four sets of time histories (fault parallel and fault normal components) for use in Humboldt ISFSI slope stability analyses. These time histories are final and approved as developed in Calculation GEO.HBIP.02.05 and are identical to those provided previously (in my 29 July 2002 letter to you) for your use in your analyses.

The CD includes the following files:

fault parallel components
set1_fp.acc
set2_fp.acc
set3_fp.acc
set4_fp.acc

fault normal components
set1_fnf.acc
set2_fnf.acc
set3_fnf.acc
set4_fnf.acc

Please verify that these time histories are the same as those used in your analyses.

Let me know if you have any questions.

Rob White

ROBERT K. WHITE

Enclosure

cc: Larry Pulley w/o

Attachment B

UTEXAS4

Input and Output Excerpts

(see Table 8-3 for listing of files)

transport3.txt

```
GRA
HEAding follows -
EST. OF YIELD ACC. (Static Loading, Search)
HBPP ISFSI - Transport Road

PROfile line data follow -
     1 1 Silty clay
          -330  -33
            40  -33

     2 2 Clayey sand
          -330  -12
            40  -12

     3 3 Silty sandy clay (sat)
          -330   4
          -120   4
          -100  -6
           -80  -6
           -60   4
            40   4

     4 4 Silty sandy clay (unsat)
          -330   6
          -124   6
          -120   4

     5 5 Silty sandy clay (weaker)
          -330  11.7
          -295  11.7
          -283  20
          -251  20
          -235  22
          -195  22
          -165  20
          -154  13
          -138  13
          -124   6

     6 4 Silty sandy clay (unsat) - II
           -60   4
           -56   6
            40   6

     7 5 Silty sandy clay (weaker)
           -56   6
           -42  13
           -26  13
           -20   9
            40   9


MATerial property data follow (for first stage)
     1 Silty clay
          128 = unit weight
          Conventional shear strengths
             0   30
          Piezometric Line
               1
     2 Clayey sand
          128 = unit weight
          Conventional shear strengths
               0 37
          Piezometric Line
               1
     3 Silty sandy clay (sat)
          125 = unit weight
          Conventional shear strength
               0   30
          Piezometric Line
               1
     4 Silty sandy clay (unsat)
          125 = unit weight
          Conventional shear strength
```

```
              0   30
         No pore pressures
      5 Silty sandy clay
         125 = unit weight
         Conventional shear strength
              0   30
         No pore pressures

PIEzometric line data follow -
      1 Piezometric Line
           -330    6
           -124    6
           -100   -6
            -80   -6
            -56    6
             40    6


DIS SURface pressures to follow
           -330  11.7       0.0     0
           -295  11.7       0.0     0
           -283  20         0.0     0
           -251  20         0.0     0
           -235  22         0.0     0
           -218  22         0.0     0
           -218  22       800.0     0
           -196  22       800.0     0
           -196  22         0.0     0
           -195  22         0.0     0
           -165  20         0.0     0
           -154  13         0.0     0
           -138  13         0.0     0
           -124   6         0.0     0
           -120   4         0.0     0
           -100  -6         0.0     0
            -80  -6         0.0     0
            -60   4         0.0     0
            -56   6         0.0     0
            -42  13         0.0     0
            -26  13         0.0     0
            -20   9         0.0     0
             40   9         0.0     0

ANAlysis/computation data follow -
      Circle Search 2
      50  50
      -186.0    152.0
      -186.0     52.0
       -86.0     52.0
       -86.0    152.0
      5      331.1
      Point
      -218.0  22.0


COMpute
```

```
TABLE NO. 1
COMPUTER PROGRAM DESIGNATION: UTEXAS4
Originally Coded By Stephen G. Wright
Version No. 4.0.0.8 - Last Revision Date: 07/27/2001
(C) Copyright 1985-2000 S. G. Wright - All rights reserved
**********************************************************************
* RESULTS OF COMPUTATIONS PERFORMED USING THIS SOFTWARE              *
* SHOULD NOT BE USED FOR DESIGN PURPOSES UNLESS THEY HAVE            *
* BEEN VERIFIED BY INDEPENDENT ANALYSES, EXPERIMENTAL DATA           *
* OR FIELD EXPERIENCE. THE USER SHOULD UNDERSTAND THE ALGORITHMS     *
* AND ANALYTICAL PROCEDURES USED IN THIS SOFTWARE AND MUST HAVE      *
* READ ALL DOCUMENTATION FOR THIS SOFTWARE BEFORE ATTEMPTING         *
* TO USE IT.  NEITHER SHINOAK SOFTWARE NOR STEPHEN G. WRIGHT         *
* MAKE OR ASSUME LIABILITY FOR ANY WARRANTIES, EXPRESSED OR          *
* IMPLIED, CONCERNING THE ACCURACY, RELIABILITY, USEFULNESS          *
* OR ADAPTABILITY OF THIS SOFTWARE.                                  *
**********************************************************************

UTEXAS4 S/N:00107  - Version: 4.0.0.8 - Latest Revision: 07/27/2001
Licensed for use by: Larry Scheibel, Geomatrix Consultants
Time and date of run: Wed Sep 11 09:41:51 2002
Name of input data file: L:\Project\5000s\5117.015\Slope
Stability\UTexas4\transport road\transport3.txt

EST. OF YIELD ACC. (Static Loading, Search)
HBPP ISFSI - Transport Road

TABLE NO. 3
**************************
* NEW PROFILE LINE DATA *
**************************

------------------------------------------------------------
----- Profile Line No. 1 - Material Type (Number): 1 -----
------------------------------------------------------------
Description: Silty clay

Point        X           Y

   1     -330.00      -33.00
   2       40.00      -33.00

------------------------------------------------------------
----- Profile Line No. 2 - Material Type (Number): 2 -----
------------------------------------------------------------
Description: Clayey sand

Point        X           Y

   1     -330.00      -12.00
   2       40.00      -12.00

------------------------------------------------------------
----- Profile Line No. 3 - Material Type (Number): 3 -----
------------------------------------------------------------
Description: Silty sandy clay (sat)
```

```
UTEXAS4 S/N:00107  - Version: 4.0.0.8 - Latest Revision: 07/27/2001
Licensed for use by: Larry Scheibel, Geomatrix Consultants
Time and date of run: Wed Sep 11 09:41:51 2002
Name of input data file: L:\Project\5000s\5117.015\Slope
Stability\UTexas4\transport road\transport3.txt

EST. OF YIELD ACC. (Static Loading, Search)
HBPP ISFSI - Transport Road

TABLE NO. 38
************************************************
* FINAL SUMMARY OF COMPUTATIONS WITH FIXED-GRID *
************************************************


Number of circles attempted: 2500
Number of circles for which F calculated: 2165
Circle with Lowest Factor of Safety:
     X coordinate for center: -122.73
     Y coordinate for center: 139.76
     Radius of circle: 151.465
Factor of safety: 1.732
Side force inclination: -13.70
Time Required for Computations: 108.0 seconds
```

transport3(dyn).txt

```
GRA
HEAding follows -
EST. OF YIELD ACC. (Dynamic Loading)
HBPP ISFSI - Transport Road

PROfile line data follow -
     1 1 Silty clay
          -330  -33
            40  -33

     2 2 Clayey sand
          -330  -12
            40  -12

     3 3 Silty sandy clay (sat)
          -330    4
          -120    4
          -100   -6
           -80   -6
           -60    4
            40    4

     4 4 Silty sandy clay (unsat)
          -330    6
          -124    6
          -120    4

     5 5 Silty sandy clay (weaker)
          -330  11.7
          -295  11.7
          -283  20
          -251  20
          -235  22
          -195  22
          -165  20
          -154  13
          -138  13
          -124   6

     6 4 Silty sandy clay (unsat) - II
           -60   4
           -56   6
            40   6

     7 5 Silty sandy clay (weaker)
           -56   6
           -42  13
           -26  13
           -20   9
            40   9


MATerial property data follow (for first stage)
     1 Silty clay
          128 = unit weight
          Conventional shear strengths
             0   30
          Piezometric Line
               1
     2 Clayey sand
          128 = unit weight
          Conventional shear strengths
               0 37
          Piezometric Line
               1
     3 Silty sandy clay (sat)
          125 = unit weight
          Conventional shear strength
               0   30
          Piezometric Line
               1
     4 Silty sandy clay (unsat)
          125 = unit weight
          Conventional shear strength
```

transport3(dyn).txt

```
GRA
HEAding follows -
EST. OF YIELD ACC. (Dynamic Loading)
HBPP ISFSI - Transport Road

PROfile line data follow -
     1 1 Silty clay
          -330  -33
            40  -33

     2 2 Clayey sand
          -330  -12
            40  -12

     3 3 Silty sandy clay (sat)
          -330    4
          -120    4
          -100   -6
           -80   -6
           -60    4
            40    4

     4 4 Silty sandy clay (unsat)
          -330    6
          -124    6
          -120    4

     5 5 Silty sandy clay (weaker)
          -330  11.7
          -295  11.7
          -283  20
          -251  20
          -235  22
          -195  22
          -165  20
          -154  13
          -138  13
          -124   6

     6 4 Silty sandy clay (unsat) - II
           -60   4
           -56   6
            40   6

     7 5 Silty sandy clay (weaker)
           -56   6
           -42  13
           -26  13
           -20   9
            40   9


MATerial property data follow (for first stage)
     1 Silty clay
          128 = unit weight
          Conventional shear strengths
             0   30
          Piezometric Line
               1
     2 Clayey sand
          128 = unit weight
          Conventional shear strengths
               0 37
          Piezometric Line
               1
     3 Silty sandy clay (sat)
          125 = unit weight
          Conventional shear strength
               0   30
          Piezometric Line
               1
     4 Silty sandy clay (unsat)
          125 = unit weight
          Conventional shear strength
```

```
            125 = unit weight
            Conventional shear strength
               900     0
            No pore pressures

 PIEzometric line data follow -
     1 Piezometric Line
            -330     6
            -124     6
            -100    -6
             -80    -6
             -56     6
              40     6


 DIS SURface pressures to follow
           -330  11.7      0.0     0
           -295  11.7      0.0     0
           -283  20        0.0     0
           -251  20        0.0     0
           -235  22        0.0     0
           -218  22        0.0     0
           -218  22      800.0     0
           -196  22      800.0     0
           -196  22        0.0     0
           -195  22        0.0     0
           -165  20        0.0     0
           -154  13        0.0     0
           -138  13        0.0     0
           -124   6        0.0     0
           -120   4        0.0     0
           -100  -6        0.0     0
            -80  -6        0.0     0
            -60   4        0.0     0
            -56   6        0.0     0
            -42  13        0.0     0
            -26  13        0.0     0
            -20   9        0.0     0
             40   9        0.0     0

 ANAlysis/computation data follow -
 Circle
      -122.73  139.76  151.465
 TWO-stage computations
 SEIsmic Coefficient follows -
 0.0

 COMpute
 HEAding follows -
 SEISMIC COEFFICIENT = 0.60g

 ANAlysis/computation data follow -
 Circle
      -122.73  139.76  151.465
 TWO-stage computations
 SEIsmic Coefficient follows -
 0.60

 COMpute
 HEAding follows -
 SEISMIC COEFFICIENT = 0.68g

 ANAlysis/computation data follow -
 Circle
      -122.73  139.76  151.465
 TWO-stage computations
 SEIsmic Coefficient follows -
 0.68

 COMpute
 HEAding follows -
 SEISMIC COEFFICIENT = 0.69g

 ANAlysis/computation data follow -
```

```
 Circle
      -122.73  139.76  151.465
 TWO-stage computations
 SEIsmic Coefficient follows -
 0.69

 COMpute
 HEAding follows -
 SEISMIC COEFFICIENT = 0.70g

 ANAlysis/computation data follow -
 Circle
      -122.73  139.76  151.465
 TWO-stage computations
 SEIsmic Coefficient follows -
 0.70

 COMpute
 HEAding follows -
 SEISMIC COEFFICIENT = 0.71g

 ANAlysis/computation data follow -
 Circle
      -122.73  139.76  151.465
 TWO-stage computations
 SEIsmic Coefficient follows -
 0.71

 COMpute
 HEAding follows -
 SEISMIC COEFFICIENT = 0.74g

 ANAlysis/computation data follow -
 Circle
      -122.73  139.76  151.465
 TWO-stage computations
 SEIsmic Coefficient follows -
 0.74

 COMpute
 HEAding follows -
 SEISMIC COEFFICIENT = 0.75g

 ANAlysis/computation data follow -
 Circle
      -122.73  139.76  151.465
 TWO-stage computations
 SEIsmic Coefficient follows -
 0.75

 COMpute
 HEAding follows -
 SEISMIC COEFFICIENT = 0.78g

 ANAlysis/computation data follow -
 Circle
      -122.73  139.76  151.465
 TWO-stage computations
 SEIsmic Coefficient follows -
 0.78

 COMpute
 HEAding follows -
 SEISMIC COEFFICIENT = 0.80g

 ANAlysis/computation data follow -
 Circle
      -122.73  139.76  151.465
 TWO-stage computations
 SEIsmic Coefficient follows -
 0.80

 COMpute
 HEAding follows -
```

```
SEISMIC COEFFICIENT = 0.83g

ANAlysis/computation data follow -
Circle
     -122.73  139.76  151.465
TWO-stage computations
SEIsmic Coefficient follows -
0.83

COMpute
HEAding follows -
SEISMIC COEFFICIENT = 0.84g

ANAlysis/computation data follow -
Circle
     -122.73  139.76  151.465
TWO-stage computations
SEIsmic Coefficient follows -
0.84

COMpute
HEAding follows -
SEISMIC COEFFICIENT = 0.85g

ANAlysis/computation data follow -
Circle
     -122.73  139.76  151.465
TWO-stage computations
SEIsmic Coefficient follows -
0.85

COMpute
HEAding follows -
SEISMIC COEFFICIENT = 0.90g

ANAlysis/computation data follow -
Circle
     -122.73  139.76  151.465
TWO-stage computations
SEIsmic Coefficient follows -
0.90

COMpute
```

```
 TABLE NO. 1
 COMPUTER PROGRAM DESIGNATION: UTEXAS4
 Originally Coded By Stephen G. Wright
 Version No. 4.0.0.8 - Last Revision Date: 07/27/2001
 (C) Copyright 1985-2000 S. G. Wright - All rights reserved
 ***********************************************************************
 * RESULTS OF COMPUTATIONS PERFORMED USING THIS SOFTWARE               *
 * SHOULD NOT BE USED FOR DESIGN PURPOSES UNLESS THEY HAVE             *
 * BEEN VERIFIED BY INDEPENDENT ANALYSES, EXPERIMENTAL DATA            *
 * OR FIELD EXPERIENCE. THE USER SHOULD UNDERSTAND THE ALGORITHMS      *
 * AND ANALYTICAL PROCEDURES USED IN THIS SOFTWARE AND MUST HAVE       *
 * READ ALL DOCUMENTATION FOR THIS SOFTWARE BEFORE ATTEMPTING          *
 * TO USE IT.  NEITHER SHINOAK SOFTWARE NOR STEPHEN G. WRIGHT          *
 * MAKE OR ASSUME LIABILITY FOR ANY WARRANTIES, EXPRESSED OR           *
 * IMPLIED, CONCERNING THE ACCURACY, RELIABILITY, USEFULNESS           *
 * OR ADAPTABILITY OF THIS SOFTWARE.                                   *
 ***********************************************************************

 UTEXAS4 S/N:00107  - Version: 4.0.0.8 - Latest Revision: 07/27/2001
 Licensed for use by: Larry Scheibel, Geomatrix Consultants
 Time and date of run: Wed Sep 11 09:41:51 2002
 Name of input data file: L:\Project\5000s\5117.015\Slope
 Stability\UTexas4\transport road\transport3(dyn).txt

 EST. OF YIELD ACC. (Dynamic Loading)
 HBPP ISFSI - Transport Road

 TABLE NO. 3
 **************************
 * NEW PROFILE LINE DATA *
 **************************

 ---------------------------------------------------------
 ----- Profile Line No. 1 - Material Type (Number): 1 -----
 ---------------------------------------------------------
 Description: Silty clay

 Point        X           Y

    1      -330.00      -33.00
    2        40.00      -33.00

 ---------------------------------------------------------
 ----- Profile Line No. 2 - Material Type (Number): 2 -----
 ---------------------------------------------------------
 Description: Clayey sand

 Point        X           Y

    1      -330.00      -12.00
    2        40.00      -12.00

 ---------------------------------------------------------
 ----- Profile Line No. 3 - Material Type (Number): 3 -----
 ---------------------------------------------------------
 Description: Silty sandy clay (sat)
```

```
UTEXAS4 S/N:00107  - Version: 4.0.0.8 - Latest Revision: 07/27/2001
Licensed for use by: Larry Scheibel, Geomatrix Consultants
Time and date of run: Wed Sep 11 09:41:51 2002
Name of input data file: L:\Project\5000s\5117.015\Slope
Stability\UTexas4\transport road\transport3(dyn).txt

SEISMIC COEFFICIENT = 0.84g

TABLE NO. 51
22222222222222222222222222222222222222222222222222222222222222
2  Information for the Iterative Solution for the Factor of  2
2  Safety and Side Force Inclination by Spencer's Procedure  2
2  Second Stage of Multi-Stage Computations                  2
22222222222222222222222222222222222222222222222222222222222222
Allowable force imbalance for convergence:  3
Allowable moment imbalance for convergence: 398
```

Iteration	Trial Factor of Safety	Trial Side Force Inclination (degrees)	Force Imbalance (lbs.)	Moment Imbalance (ft.-lbs.)	Delta-F	Delta Theta (degrees)
1	3.00000	-17.1887	-1.869e+005	-7.784e+006		
First-order corrections to F and Theta					-6.2393	-2.0570
Reduced values - Deltas were too large					-0.5000	-0.1648
2	2.50000	-17.3536	-1.690e+005	-7.011e+006		
First-order corrections to F and Theta					-3.9113	-2.2072
Reduced values - Deltas were too large					-0.5000	-0.2822
3	2.00000	-17.6357	-1.419e+005	-5.838e+006		
First-order corrections to F and Theta					-2.0977	-2.4816
Reduced values - Deltas were too large					-0.5000	-0.5915
4	1.50000	-18.2272	-9.679e+004	-3.835e+006		
First-order corrections to F and Theta					-0.7976	-3.1479
Reduced values - Deltas were too large					-0.5000	-1.9733
5	1.00000	-20.2005	-5.487e+003	5.146e+005		
First-order corrections to F and Theta					-0.0024	-7.7321
Reduced values - Deltas were too large					-0.0009	-2.8648
6	0.99911	-23.0653	-3.400e+003	3.358e+005		
First-order corrections to F and Theta					0.0003	-5.2283
Reduced values - Deltas were too large					0.0001	-2.8648
7	0.99925	-25.9301	-1.468e+003	1.623e+005		
First-order corrections to F and Theta					0.0012	-2.5108
Second-order corrections to F and Theta					0.0014	-2.5329
8	1.00069	-28.4630	4.976e+000	2.381e+002		
First-order corrections to F and Theta					0.0000	0.0012
Second-order corrections to F and Theta					0.0000	0.0012
9	1.00070	-28.4619	-3.232e-009	-3.621e-007		
First-order corrections to F and Theta					-0.0000	0.0000

Attachment C

Excel spreadsheets for rotation of ground motions

Input and Output Excerpts

(see Table 8-4 for listing of files)

Time history matched to spectrum::::SetTarget:syn_soil_fn.target with fling
15999 0.0050

-0.229294E-03	-0.223550E-03	-0.229094E-03	-0.223487E-03	-0.229147E-03
-0.223613E-03	-0.229336E-03	-0.223855E-03	-0.229787E-03	-0.224390E-03
-0.230386E-03	-0.225157E-03	-0.231215E-03	-0.226102E-03	-0.232339E-03
-0.227288E-03	-0.233588E-03	-0.228632E-03	-0.235142E-03	-0.230249E-03
-0.236864E-03	-0.232066E-03	-0.238817E-03	-0.234145E-03	-0.241022E-03
-0.236413E-03	-0.243395E-03	-0.238807E-03	-0.245884E-03	-0.241495E-03
-0.248729E-03	-0.244246E-03	-0.251533E-03	-0.247175E-03	-0.254651E-03
-0.250273E-03	-0.257843E-03	-0.253486E-03	-0.261235E-03	-0.256783E-03
-0.264584E-03	-0.260206E-03	-0.268007E-03	-0.263681E-03	-0.271630E-03
-0.267283E-03	-0.275294E-03	-0.270832E-03	-0.278990E-03	-0.274559E-03
-0.282823E-03	-0.278402E-03	-0.286781E-03	-0.282455E-03	-0.291013E-03
-0.286592E-03	-0.295402E-03	-0.291181E-03	-0.300190E-03	-0.296126E-03
-0.305524E-03	-0.301670E-03	-0.311519E-03	-0.307897E-03	-0.318397E-03
-0.315247E-03	-0.326303E-03	-0.323762E-03	-0.335701E-03	-0.333895E-03
-0.346936E-03	-0.346075E-03	-0.360218E-03	-0.360523E-03	-0.376252E-03
-0.377984E-03	-0.395456E-03	-0.398869E-03	-0.418462E-03	-0.423901E-03
-0.445783E-03	-0.453595E-03	-0.478207E-03	-0.488927E-03	-0.516931E-03
-0.530885E-03	-0.562637E-03	-0.580529E-03	-0.616681E-03	-0.639193E-03
-0.680458E-03	-0.708262E-03	-0.755459E-03	-0.789637E-03	-0.843743E-03
-0.884872E-03	-0.946706E-03	-0.996004E-03	-0.106645E-02	-0.112451E-02
-0.120442E-02	-0.127246E-02	-0.136307E-02	-0.144256E-02	-0.154504E-02
-0.163649E-02	-0.175178E-02	-0.185657E-02	-0.198541E-02	-0.210406E-02
-0.224728E-02	-0.238042E-02	-0.253876E-02	-0.268733E-02	-0.286132E-02
-0.302554E-02	-0.321538E-02	-0.339566E-02	-0.360104E-02	-0.379655E-02
-0.401747E-02	-0.422747E-02	-0.446183E-02	-0.468422E-02	-0.492982E-02
-0.516166E-02	-0.541544E-02	-0.565526E-02	-0.591629E-02	-0.616168E-02
-0.642670E-02	-0.667408E-02	-0.693941E-02	-0.718543E-02	-0.744709E-02
-0.768743E-02	-0.794174E-02	-0.817253E-02	-0.841529E-02	-0.863254E-02
-0.886018E-02	-0.906052E-02	-0.926999E-02	-0.945059E-02	-0.963823E-02
-0.979415E-02	-0.995543E-02	-0.100840E-01	-0.102163E-01	-0.103145E-01
-0.104158E-01	-0.104819E-01	-0.105503E-01	-0.105828E-01	-0.106164E-01
-0.106143E-01	-0.106122E-01	-0.105744E-01	-0.105387E-01	-0.104666E-01
-0.104049E-01	-0.103237E-01	-0.102604E-01	-0.101772E-01	-0.101120E-01
-0.100269E-01	-0.995858E-02	-0.986912E-02	-0.979552E-02	-0.970049E-02
-0.962132E-02	-0.952000E-02	-0.943348E-02	-0.932491E-02	-0.923177E-02
-0.911617E-02	-0.901673E-02	-0.889766E-02	-0.879676E-02	-0.867611E-02
-0.857227E-02	-0.844963E-02	-0.834400E-02	-0.821873E-02	-0.811415E-02
-0.799109E-02	-0.788357E-02	-0.775852E-02	-0.765436E-02	-0.752993E-02
-0.742220E-02	-0.729536E-02	-0.718669E-02	-0.705691E-02	-0.694225E-02
-0.680785E-02	-0.669035E-02	-0.655364E-02	-0.643793E-02	-0.630227E-02
-0.618394E-02	-0.605374E-02	-0.594674E-02	-0.582127E-02	-0.571606E-02
-0.559048E-02	-0.547319E-02	-0.532766E-02	-0.519778E-02	-0.505088E-02
-0.492677E-02	-0.479185E-02	-0.468349E-02	-0.456200E-02	-0.446215E-02
-0.434717E-02	-0.426170E-02	-0.416951E-02	-0.409738E-02	-0.400697E-02
-0.392759E-02	-0.380086E-02	-0.366709E-02	-0.350959E-02	-0.337151E-02
-0.321811E-02	-0.310082E-02	-0.298585E-02	-0.289639E-02	-0.278173E-02
-0.266854E-02	-0.251629E-02	-0.237170E-02	-0.221641E-02	-0.209618E-02
-0.196766E-02	-0.186455E-02	-0.175294E-02	-0.166631E-02	-0.156121E-02
-0.147448E-02	-0.137473E-02	-0.131026E-02	-0.123749E-02	-0.117680E-02
-0.109511E-02	-0.103207E-02	-0.936637E-03	-0.829810E-03	-0.675218E-03
-0.552515E-03	-0.438832E-03	-0.316318E-03	-0.146984E-03	-0.181598E-04
0.129649E-03	0.291706E-03	0.476160E-03	0.620776E-03	0.764238E-03
0.883014E-03	0.102947E-02	0.114212E-02	0.122014E-02	0.123253E-02
0.122738E-02	0.116480E-02	0.115399E-02	0.122255E-02	0.132640E-02
0.137092E-02	0.145429E-02	0.154784E-02	0.164371E-02	0.171542E-02

```
   Time history matched to spectrum::::SetTarget:syn_soil_fp.target
15999   0.005
 0.8463494E-04  0.8557436E-04  0.8446420E-04  0.8533738E-04  0.8411581E-04
 0.8502627E-04  0.8378128E-04  0.8468197E-04  0.8343122E-04  0.8425167E-04
 0.8302161E-04  0.8380364E-04  0.8248642E-04  0.8320599E-04  0.8191102E-04
 0.8264518E-04  0.8125173E-04  0.8194326E-04  0.8053489E-04  0.8118348E-04
 0.7973206E-04  0.8037340E-04  0.7888639E-04  0.7946053E-04  0.7788648E-04
 0.7841137E-04  0.7684257E-04  0.7728882E-04  0.7561302E-04  0.7591857E-04
 0.7417986E-04  0.7439942E-04  0.7249483E-04  0.7255279E-04  0.7053700E-04
 0.7043326E-04  0.6816033E-04  0.6784354E-04  0.6535441E-04  0.6472483E-04
 0.6190810E-04  0.6094987E-04  0.5778150E-04  0.5626687E-04  0.5254105E-04
 0.5051518E-04  0.4619401E-04  0.4333875E-04  0.3828163E-04  0.3461682E-04
 0.2858950E-04  0.2392414E-04  0.1690374E-04  0.1126713E-04  0.3187306E-05
-0.3637756E-05 -0.1279803E-04 -0.2078118E-04 -0.3123907E-04 -0.4073107E-04
-0.5277447E-04 -0.6404075E-04 -0.7787955E-04 -0.9109884E-04 -0.1069015E-03
-0.1221885E-03 -0.1402065E-03 -0.1579095E-03 -0.1782679E-03 -0.1984070E-03
-0.2213169E-03 -0.2441649E-03 -0.2698678E-03 -0.2955718E-03 -0.3242673E-03
-0.3532368E-03 -0.3851977E-03 -0.4176312E-03 -0.4530162E-03 -0.4890091E-03
-0.5280261E-03 -0.5677465E-03 -0.6103755E-03 -0.6539085E-03 -0.7003594E-03
-0.7478289E-03 -0.7983329E-03 -0.8499182E-03 -0.9044437E-03 -0.9602386E-03
-0.1018891E-02 -0.1079022E-02 -0.1142305E-02 -0.1207374E-02 -0.1275487E-02
-0.1345596E-02 -0.1418949E-02 -0.1494517E-02 -0.1573446E-02 -0.1654789E-02
-0.1739598E-02 -0.1827031E-02 -0.1918140E-02 -0.2011863E-02 -0.2109376E-02
-0.2210145E-02 -0.2314694E-02 -0.2422497E-02 -0.2534396E-02 -0.2649748E-02
-0.2769102E-02 -0.2892130E-02 -0.3019359E-02 -0.3150787E-02 -0.3286731E-02
-0.3426864E-02 -0.3571102E-02 -0.3719226E-02 -0.3871234E-02 -0.4026382E-02
-0.4184691E-02 -0.4345204E-02 -0.4507923E-02 -0.4671691E-02 -0.4835869E-02
-0.4999743E-02 -0.5163826E-02 -0.5328225E-02 -0.5492403E-02 -0.5656381E-02
-0.5820045E-02 -0.5982028E-02 -0.6142636E-02 -0.6300525E-02 -0.6455998E-02
-0.6607797E-02 -0.6755909E-02 -0.6898678E-02 -0.7036617E-02 -0.7167940E-02
-0.7293058E-02 -0.7410626E-02 -0.7520950E-02 -0.7622443E-02 -0.7715967E-02
-0.7799935E-02 -0.7875399E-02 -0.7940456E-02 -0.7996180E-02 -0.8041088E-02
-0.8075907E-02 -0.8099290E-02 -0.8112594E-02 -0.8114232E-02 -0.8105590E-02
-0.8084979E-02 -0.8053961E-02 -0.8010880E-02 -0.7958033E-02 -0.7893836E-02
-0.7824610E-02 -0.7753914E-02 -0.7683836E-02 -0.7612195E-02 -0.7540554E-02
-0.7467642E-02 -0.7395160E-02 -0.7320568E-02 -0.7245041E-02 -0.7167100E-02
-0.7088623E-02 -0.7007742E-02 -0.6926020E-02 -0.6842188E-02 -0.6757527E-02
-0.6670754E-02 -0.6583259E-02 -0.6493767E-02 -0.6403320E-02 -0.6310259E-02
-0.6215926E-02 -0.6119610E-02 -0.6022443E-02 -0.5923081E-02 -0.5822670E-02
-0.5720358E-02 -0.5617216E-02 -0.5512174E-02 -0.5406408E-02 -0.5298845E-02
-0.5190769E-02 -0.5080278E-02 -0.4969461E-02 -0.4855399E-02 -0.4741853E-02
-0.4626321E-02 -0.4508679E-02 -0.4398082E-02 -0.4271200E-02 -0.4118079E-02
-0.3987627E-02 -0.3871570E-02 -0.3747103E-02 -0.3624327E-02 -0.3502800E-02
-0.3379603E-02 -0.3258286E-02 -0.3135825E-02 -0.3014718E-02 -0.2893621E-02
-0.2774299E-02 -0.2655723E-02 -0.2538816E-02 -0.2421499E-02 -0.2305537E-02
-0.2189901E-02 -0.2075094E-02 -0.1958617E-02 -0.1842550E-02 -0.1727019E-02
-0.1614312E-02 -0.1502655E-02 -0.1392688E-02 -0.1281766E-02 -0.1172115E-02
-0.1064028E-02 -0.9599383E-03 -0.8590376E-03 -0.7611397E-03 -0.6624029E-03
-0.5640537E-03 -0.4668804E-03 -0.3720696E-03 -0.2779623E-03 -0.1865745E-03
-0.9504001E-04 -0.4096365E-05  0.8668201E-04  0.1747189E-03  0.2602635E-03
 0.3402798E-03  0.4177131E-03  0.4943798E-03  0.5727792E-03  0.6512741E-03
 0.7300828E-03  0.8059096E-03  0.8803830E-03  0.9508022E-03  0.1020308E-02
 0.1088755E-02  0.1155294E-02  0.1216330E-02  0.1276537E-02  0.1339359E-02
 0.1407651E-02  0.1476888E-02  0.1548214E-02  0.1618396E-02  0.1685218E-02
 0.1747315E-02  0.1810137E-02  0.1870974E-02  0.1930551E-02  0.1990012E-02
 0.2049589E-02  0.2109061E-02  0.2173878E-02  0.2240385E-02  0.2305632E-02
 0.2367928E-02  0.2433490E-02  0.2503042E-02  0.2577634E-02  0.2654631E-02
```

Set1:
Acceleration Time Histories

deg
ϕ 264

NPTS = 15999
DT = 0.005

Time (sec)	FN Fault Normal	FP Fault Parallel	c-c' (ϕ rotate)
0.000	-.229294E-03	.846349E-04	.219191E-03
0.005	-.223550E-03	.855744E-04	.213380E-03
0.010	-.229094E-03	.844642E-04	.219010E-03
0.015	-.223487E-03	.853374E-04	.213343E-03
0.020	-.229147E-03	.841158E-04	.219099E-03
0.025	-.223613E-03	.850263E-04	.213500E-03
0.030	-.229336E-03	.837813E-04	.219322E-03
0.035	-.223855E-03	.846820E-04	.213777E-03
0.040	-.229787E-03	.834312E-04	.219807E-03
0.045	-.224390E-03	.842517E-04	.214354E-03
0.050	-.230386E-03	.830216E-04	.220446E-03
0.055	-.225157E-03	.838036E-04	.215164E-03
0.060	-.231215E-03	.824864E-04	.221326E-03
0.065	-.226102E-03	.832060E-04	.216166E-03
0.070	-.232339E-03	.819110E-04	.222504E-03
0.075	-.227288E-03	.826452E-04	.217404E-03
0.080	-.233588E-03	.812517E-04	.223815E-03
0.085	-.228632E-03	.819433E-04	.218814E-03
0.090	-.235142E-03	.805349E-04	.225436E-03
0.095	-.230249E-03	.811835E-04	.220502E-03
0.100	-.236864E-03	.797321E-04	.227232E-03
0.105	-.232066E-03	.803734E-04	.222393E-03
0.110	-.238817E-03	.788864E-04	.229263E-03
0.115	-.234145E-03	.794605E-04	.224556E-03
0.120	-.241022E-03	.778865E-04	.231560E-03
0.125	-.236413E-03	.784114E-04	.226922E-03
0.130	-.243395E-03	.768426E-04	.234029E-03
0.135	-.238807E-03	.772888E-04	.229420E-03
0.140	-.245884E-03	.756130E-04	.236633E-03
0.145	-.241495E-03	.759186E-04	.232236E-03
0.150	-.248729E-03	.741799E-04	.239613E-03
0.155	-.244246E-03	.743994E-04	.235131E-03
0.160	-.251533E-03	.724948E-04	.242577E-03
0.165	-.247175E-03	.725528E-04	.238237E-03
0.170	-.254651E-03	.705370E-04	.245883E-03
0.175	-.250273E-03	.704333E-04	.241540E-03
0.180	-.257843E-03	.681603E-04	.249306E-03
0.185	-.253486E-03	.678435E-04	.245006E-03
0.190	-.261235E-03	.653544E-04	.252973E-03
0.195	-.256783E-03	.647248E-04	.248611E-03
0.200	-.264584E-03	.619081E-04	.256663E-03
0.205	-.260206E-03	.609499E-04	.252410E-03
0.210	-.268007E-03	.577815E-04	.260499E-03
0.215	-.263681E-03	.562669E-04	.256355E-03
0.220	-.271630E-03	.525411E-04	.264650E-03

excerpt from S1CC.AC8

Set1:

15999 .00500

.219191E-03	.213380E-03	.219010E-03	.213343E-03	.219099E-03	.213500E-03	.219322E-03	.213777E-03
.219807E-03	.214354E-03	.220446E-03	.215164E-03	.221326E-03	.216166E-03	.222504E-03	.217404E-03
.223815E-03	.218814E-03	.225436E-03	.220502E-03	.227232E-03	.222393E-03	.229263E-03	.224556E-03
.231560E-03	.226922E-03	.234029E-03	.229420E-03	.236633E-03	.232236E-03	.239613E-03	.235131E-03
.242577E-03	.238237E-03	.245883E-03	.241540E-03	.249306E-03	.245006E-03	.252973E-03	.248611E-03
.256663E-03	.252410E-03	.260499E-03	.256355E-03	.264650E-03	.260539E-03	.268957E-03	.264818E-03
.273460E-03	.269436E-03	.278285E-03	.274376E-03	.283443E-03	.279730E-03	.289086E-03	.285402E-03
.295122E-03	.291758E-03	.301811E-03	.298761E-03	.309367E-03	.306712E-03	.317953E-03	.315733E-03
.327827E-03	.326292E-03	.339171E-03	.338494E-03	.352496E-03	.352805E-03	.368169E-03	.369701E-03
.386454E-03	.389444E-03	.408086E-03	.412837E-03	.433554E-03	.440338E-03	.463523E-03	.472694E-03
.498535E-03	.510456E-03	.539389E-03	.554601E-03	.587307E-03	.606146E-03	.643003E-03	.666189E-03
.707843E-03	.736064E-03	.783233E-03	.817171E-03	.870724E-03	.911516E-03	.972446E-03	.102068E-02
.108984E-02	.114677E-02	.122508E-02	.129132E-02	.137966E-02	.145647E-02	.155610E-02	.164495E-02
.175707E-02	.185855E-02	.198433E-02	.209962E-02	.223945E-02	.236951E-02	.252442E-02	.266969E-02
.284046E-02	.300196E-02	.318920E-02	.336717E-02	.357105E-02	.376582E-02	.398597E-02	.419662E-02
.443288E-02	.465851E-02	.490859E-02	.514688E-02	.540830E-02	.565600E-02	.592554E-02	.618123E-02
.645799E-02	.671918E-02	.699985E-02	.726281E-02	.756348E-02	.780465E-02	.808113E-02	.833602E-02
.860442E-02	.884887E-02	.910472E-02	.933450E-02	.957398E-02	.978551E-02	.100054E-01	.101956E-01
.103920E-01	.105558E-01	.107241E-01	.108588E-01	.109962E-01	.110985E-01	.112029E-01	.112711E-01
.113405E-01	.113730E-01	.114055E-01	.114013E-01	.113959E-01	.113538E-01	.113128E-01	.112344E-01
.111658E-01	.110777E-01	.110074E-01	.109171E-01	.108448E-01	.107526E-01	.106770E-01	.105803E-01
.104992E-01	.103965E-01	.103096E-01	.102004E-01	.101058E-01	.998903E-02	.988755E-02	.976351E-02
.965547E-02	.952770E-02	.941790E-02	.928818E-02	.917505E-02	.904302E-02	.892781E-02	.879284E-02
.867833E-02	.854525E-02	.842754E-02	.829220E-02	.817755E-02	.804256E-02	.792412E-02	.778643E-02
.766677E-02	.752578E-02	.739988E-02	.725414E-02	.712498E-02	.697746E-02	.684912E-02	.669820E-02
.656688E-02	.642527E-02	.630584E-02	.616823E-02	.605089E-02	.591312E-02	.578379E-02	.562626E-02
.548443E-02	.532568E-02	.518977E-02	.504320E-02	.492321E-02	.479012E-02	.467870E-02	.455226E-02
.445526E-02	.435140E-02	.426753E-02	.416554E-02	.407482E-02	.393711E-02	.379258E-02	.362435E-02
.347556E-02	.331170E-02	.318417E-02	.305929E-02	.296008E-02	.283573E-02	.271288E-02	.255131E-02
.239760E-02	.223332E-02	.210420E-02	.196682E-02	.185476E-02	.173428E-02	.163892E-02	.152545E-02
.143083E-02	.132154E-02	.125141E-02	.117084E-02	.110228E-02	.101280E-02	.942176E-03	.839481E-03
.725878E-03	.564868E-03	.435682E-03	.315667E-03	.187444E-03	.127444E-04	-.121941E-03	-.276078E-03
-.444485E-03	-.635384E-03	-.786544E-03	-.936205E-03	-.106082E-02	-.121304E-02	-.133143E-02	-.141525E-02
-.143379E-02	-.143490E-02	-.137888E-02	-.137490E-02	-.145004E-02	-.156014E-02	-.161093E-02	-.170069E-02
-.180100E-02	-.190414E-02	-.198351E-02	-.210996E-02	-.222700E-02	-.236713E-02	-.249925E-02	-.260399E-02
-.264841E-02	-.271382E-02	-.275684E-02	-.284692E-02	-.299212E-02	-.328961E-02	-.368870E-02	-.405905E-02
-.429772E-02	-.444085E-02	-.443058E-02	-.441119E-02	-.441058E-02	-.445800E-02	-.450511E-02	-.454011E-02
-.452517E-02	-.447211E-02	-.438663E-02	-.441531E-02	-.451745E-02	-.465853E-02	-.493045E-02	-.524592E-02
-.540699E-02	-.544265E-02	-.532612E-02	-.518889E-02	-.521017E-02	-.550806E-02	-.585667E-02	-.615923E-02
-.640946E-02	-.664936E-02	-.683628E-02	-.683775E-02	-.645270E-02	-.596375E-02	-.556670E-02	-.533916E-02
-.526878E-02	-.536468E-02	-.566068E-02	-.606751E-02	-.624750E-02	-.625948E-02	-.607697E-02	-.571894E-02
-.542195E-02	-.553288E-02	-.606324E-02	-.661655E-02	-.672706E-02	-.671469E-02	-.683180E-02	-.681328E-02
-.662415E-02	-.668509E-02	-.692349E-02	-.749943E-02	-.866303E-02	-.990494E-02	-.106417E-01	-.111408E-01
-.116204E-01	-.121226E-01	-.123006E-01	-.119448E-01	-.115164E-01	-.113459E-01	-.112820E-01	-.116831E-01
-.122096E-01	-.119467E-01	-.107644E-01	-.936433E-02	-.834058E-02	-.753094E-02	-.646221E-02	-.576238E-02
-.575829E-02	-.584856E-02	-.562570E-02	-.533441E-02	-.506289E-02	-.467805E-02	-.440997E-02	-.508154E-02
-.656024E-02	-.790267E-02	-.893714E-02	-.103810E-01	-.121059E-01	-.135977E-01	-.149391E-01	-.161420E-01
-.173229E-01	-.173235E-01	-.162786E-01	-.149148E-01	-.136370E-01	-.122652E-01	-.107171E-01	-.933538E-02
-.833580E-02	-.778326E-02	-.747138E-02	-.769000E-02	-.847867E-02	-.910313E-02	-.962807E-02	-.107933E-01
-.122589E-01	-.137476E-01	-.157586E-01	-.188452E-01	-.216126E-01	-.219298E-01	-.194469E-01	-.148827E-01
-.992154E-02	-.677640E-02	-.542650E-02	-.498338E-02	-.475514E-02	-.403974E-02	-.216774E-02	.826407E-03
.359371E-02	.495785E-02	.499284E-02	.412139E-02	.320538E-02	.175324E-02	-.124208E-02	-.442772E-02
-.607180E-02	-.709271E-02	-.870530E-02	-.110079E-01	-.133388E-01	-.147800E-01	-.154665E-01	-.160706E-01
-.157959E-01	-.134800E-01	-.957128E-02	-.646877E-02	-.444723E-02	-.174127E-02	.463716E-03	.203122E-03
-.809933E-03	-.114430E-02	-.221450E-02	-.428699E-02	-.533341E-02	-.612499E-02	-.899175E-02	-.130064E-01
-.149220E-01	-.136531E-01	-.781025E-02	-.346810E-02	.401348E-03	.212930E-02	-.137059E-02	-.714542E-02
-.115132E-01	-.152401E-01	-.157572E-01	-.108434E-01	-.602421E-02	-.390798E-02	-.122406E-02	-.228059E-03
-.282871E-02	-.496712E-02	-.733342E-02	-.143048E-01	-.231641E-01	-.286805E-01	-.306815E-01	-.314055E-01
-.311913E-01	-.292342E-01	-.265236E-01	-.249246E-01	-.238873E-01	-.231462E-01	-.218624E-01	-.178065E-01
-.128238E-01	-.953561E-02	-.776251E-02	-.975236E-02	-.155589E-01	-.207328E-01	-.240607E-01	-.265700E-01
-.268565E-01	-.242296E-01	-.208848E-01	-.191512E-01	-.180017E-01	-.165304E-01	-.159390E-01	-.159688E-01
-.166741E-01	-.187227E-01	-.195259E-01	-.163177E-01	-.948142E-02	-.397398E-02	-.106501E-02	-.295422E-02
-.362051E-02	-.942032E-02	-.166201E-01	-.200375E-01	-.198481E-01	-.166373E-01	-.131723E-01	-.136970E-01
-.165369E-01	-.178326E-01	-.166890E-01	-.139908E-01	-.133554E-01	-.177237E-01	-.244015E-01	-.325858E-01
-.438117E-01	-.544571E-01	-.602783E-01	-.587466E-01	-.489066E-01	-.374003E-01	-.291508E-01	-.220420E-01
-.176506E-01	-.178449E-01	-.177714E-01	-.143039E-01	-.980145E-02	-.661621E-02	-.521649E-02	-.677982E-02
-.127783E-01	-.233225E-01	-.342466E-01	-.396194E-01	-.398934E-01	-.389467E-01	-.360505E-01	-.297901E-01
-.224813E-01	-.170497E-01	-.132446E-01	-.918891E-02	-.406571E-02	-.354946E-03	-.429523E-04	.728530E-03
.382428E-02	.577729E-02	.863643E-02	.155456E-01	.227946E-01	.259929E-01	.233226E-01	.167193E-01
.107828E-01	.610319E-02	.287137E-02	.840387E-03	-.289829E-02	-.814170E-02	-.146872E-01	-.227632E-01
-.298494E-01	-.345604E-01	-.341413E-01	-.305224E-01	-.295288E-01	-.282031E-01	-.251366E-01	-.221129E-01
-.138004E-01	-.256124E-02	.266922E-02	.286039E-02	.300939E-02	.351427E-02	.276705E-02	.301251E-02
.878229E-02	.179906E-01	.257796E-01	.287299E-01	.250658E-01	.193326E-01	.185061E-01	.261400E-01
.403750E-01	.528671E-01	.576135E-01	.522466E-01	.359817E-01	.144466E-01	-.793545E-02	-.303318E-01
-.460219E-01	-.532193E-01	-.576322E-01	-.572600E-01	-.474668E-01	-.287538E-01	-.148861E-02	.356010E-02
.498730E-02	.950869E-02	.153745E-01	.159713E-01	.152244E-01	.153952E-01	.154345E-01	.151586E-01
.148523E-01	.153778E-01	.138077E-01	.899166E-02	.418621E-02	-.411054E-02	-.167064E-01	-.269933E-01
-.349891E-01	-.427130E-01	-.478657E-01	-.530127E-01	-.661993E-01	-.879693E-01	-.106418E+00	-.112128E+00
-.105441E+00	-.891979E-01	-.647931E-01	-.364531E-01	-.137026E-01	-.113577E-02	.388709E-02	.351100E-02
.480178E-02	.144334E-01	.277478E-01	.382070E-01	.443601E-01	.446668E-01	.377657E-01	.276928E-01
.206962E-01	.155115E-01	.936150E-02	.613967E-02	-.224610E-02	-.127576E-01	-.242939E-01	-.360695E-01
-.470908E-01	-.527373E-01	-.538173E-01	-.519296E-01	-.472196E-01	-.465931E-01	-.520231E-01	-.581822E-01
-.646720E-01	-.688505E-01	-.648944E-01	-.569782E-01	-.529562E-01	-.514205E-01	-.464456E-01	-.398707E-01
-.348192E-01	-.271408E-01	-.182313E-01	-.154838E-01	-.179166E-01	-.228791E-01	-.299507E-01	-.351538E-01
-.367809E-01	-.353957E-01	-.304160E-01	-.246157E-01	-.189167E-01	-.128961E-01	-.882497E-02	-.456569E-02
.175696E-02	.745985E-02	.139605E-01	.236244E-01	.336982E-01	.395697E-01	.411357E-01	.388089E-01
.295571E-01	.168741E-01	.655350E-02	-.557749E-02	-.219830E-01	-.339471E-01	-.335305E-01	-.267833E-01
-.228484E-01	-.189125E-01	-.127015E-01	-.993236E-02	-.138757E-01	-.237629E-01	-.345264E-01	-.423057E-01
-.459443E-01	-.409218E-01	-.296046E-01	-.219687E-01	-.183009E-01	-.150790E-01	-.190002E-01	-.331756E-01
-.466716E-01	-.529998E-01	-.515748E-01	-.408784E-01	-.285249E-01	-.211800E-01	-.152687E-01	-.917764E-02
-.239478E-02	.260014E-02	.244457E-02	.445127E-02	.126885E-01	.219733E-01	.308310E-01	.371886E-01
.385657E-01	.362140E-01	.328869E-01	.313947E-01	.312852E-01	.328526E-01	.366703E-01	.389292E-01
.385530E-01	.334424E-01	.220179E-01	.117203E-01	.421014E-02	-.546845E-02	-.121845E-01	-.117425E-01

Time history matched to spectrum::::SetTarget:syn_soil_fn.target with fling
15999 0.0050

0.326925E-03	0.322966E-03	0.326473E-03	0.322672E-03	0.326305E-03
0.322578E-03	0.326379E-03	0.322872E-03	0.326715E-03	0.323292E-03
0.327355E-03	0.324016E-03	0.328258E-03	0.325098E-03	0.329424E-03
0.326410E-03	0.330862E-03	0.327922E-03	0.332616E-03	0.329781E-03
0.334579E-03	0.331860E-03	0.336774E-03	0.334149E-03	0.339294E-03
0.336732E-03	0.342108E-03	0.339556E-03	0.345069E-03	0.342643E-03
0.348313E-03	0.345898E-03	0.351778E-03	0.349447E-03	0.355453E-03
0.353143E-03	0.359391E-03	0.357112E-03	0.363486E-03	0.361333E-03
0.367843E-03	0.365733E-03	0.372621E-03	0.370479E-03	0.377398E-03
0.375372E-03	0.382554E-03	0.380569E-03	0.388014E-03	0.386176E-03
0.393883E-03	0.392088E-03	0.400110E-03	0.398535E-03	0.406914E-03
0.405318E-03	0.414211E-03	0.412920E-03	0.422212E-03	0.421131E-03
0.430938E-03	0.430203E-03	0.440598E-03	0.440041E-03	0.451087E-03
0.450951E-03	0.462690E-03	0.463005E-03	0.475563E-03	0.476476E-03
0.489853E-03	0.491334E-03	0.505771E-03	0.508060E-03	0.523611E-03
0.526803E-03	0.543519E-03	0.547719E-03	0.565810E-03	0.570850E-03
0.590233E-03	0.596355E-03	0.617061E-03	0.624211E-03	0.646240E-03
0.654294E-03	0.677509E-03	0.686340E-03	0.710448E-03	0.719856E-03
0.744825E-03	0.754695E-03	0.780861E-03	0.791760E-03	0.819154E-03
0.830988E-03	0.859674E-03	0.872326E-03	0.902241E-03	0.915618E-03
0.946540E-03	0.961177E-03	0.994830E-03	0.101291E-02	0.105085E-02
0.107342E-02	0.111668E-02	0.114493E-02	0.119512E-02	0.123071E-02
0.128941E-02	0.133414E-02	0.140165E-02	0.145247E-02	0.152461E-02
0.157952E-02	0.165554E-02	0.171340E-02	0.179162E-02	0.185042E-02
0.192854E-02	0.198566E-02	0.206053E-02	0.211166E-02	0.217813E-02
0.221761E-02	0.227210E-02	0.230087E-02	0.234403E-02	0.235978E-02
0.238792E-02	0.238592E-02	0.239380E-02	0.236954E-02	0.235327E-02
0.230297E-02	0.225929E-02	0.218086E-02	0.210946E-02	0.200362E-02
0.190576E-02	0.177650E-02	0.165859E-02	0.151138E-02	0.137855E-02
0.122147E-02	0.108445E-02	0.928806E-03	0.799215E-03	0.656079E-03
0.544831E-03	0.427032E-03	0.344386E-03	0.256795E-03	0.206605E-03
0.153906E-03	0.142083E-03	0.126207E-03	0.145180E-03	0.159219E-03
0.204421E-03	0.230178E-03	0.277050E-03	0.299068E-03	0.332826E-03
0.344355E-03	0.378669E-03	0.387069E-03	0.410904E-03	0.408783E-03
0.422548E-03	0.418831E-03	0.438193E-03	0.427504E-03	0.432975E-03
0.420312E-03	0.422947E-03	0.398566E-03	0.396445E-03	0.369618E-03
0.354319E-03	0.318294E-03	0.305830E-03	0.268629E-03	0.251451E-03
0.214407E-03	0.197418E-03	0.161760E-03	0.152142E-03	0.121608E-03
0.111591E-03	0.845403E-04	0.818093E-04	0.609132E-04	0.641252E-04
0.502442E-04	0.608481E-04	0.528891E-04	0.693636E-04	0.699296E-04
0.950508E-04	0.101297E-03	0.132223E-03	0.147679E-03	0.184303E-03
0.192672E-03	0.218670E-03	0.231427E-03	0.268167E-03	0.279381E-03
0.315910E-03	0.334128E-03	0.365922E-03	0.391972E-03	0.466039E-03
0.513730E-03	0.572446E-03	0.620337E-03	0.686539E-03	0.725410E-03
0.798595E-03	0.850665E-03	0.899889E-03	0.923472E-03	0.983563E-03
0.102181E-02	0.107195E-02	0.110692E-02	0.116236E-02	0.118945E-02
0.125518E-02	0.131923E-02	0.139378E-02	0.143830E-02	0.151411E-02
0.157385E-02	0.165155E-02	0.170815E-02	0.178690E-02	0.184360E-02
0.191489E-02	0.196172E-02	0.203564E-02	0.208783E-02	0.214495E-02
0.217256E-02	0.222695E-02	0.226118E-02	0.231001E-02	0.233342E-02
0.237668E-02	0.240871E-02	0.246530E-02	0.249208E-02	0.253828E-02
0.255812E-02	0.258458E-02	0.259204E-02	0.262175E-02	0.262375E-02
0.264538E-02	0.262910E-02	0.261766E-02	0.259813E-02	0.259151E-02
0.254668E-02	0.256201E-02	0.258311E-02	0.259151E-02	0.257104E-02
0.258721E-02	0.257461E-02	0.258605E-02	0.256768E-02	0.253061E-02

```
   Time history matched to spectrum::::SetTarget:syn_soil_fp.target
15999    0.005
 0.2646084E-04  0.2414023E-04  0.2639553E-04  0.2413792E-04  0.2645517E-04
 0.2413456E-04  0.2646861E-04  0.2424880E-04  0.2658285E-04  0.2435149E-04
 0.2669299E-04  0.2458764E-04  0.2697208E-04  0.2479638E-04  0.2721558E-04
 0.2515327E-04  0.2761962E-04  0.2554891E-04  0.2802376E-04  0.2602341E-04
 0.2856850E-04  0.2652940E-04  0.2916795E-04  0.2720760E-04  0.2987764E-04
 0.2797924E-04  0.3065664E-04  0.2878974E-04  0.3158474E-04  0.2976508E-04
 0.3258318E-04  0.3084963E-04  0.3374647E-04  0.3204337E-04  0.3495607E-04
 0.3339462E-04  0.3638502E-04  0.3478377E-04  0.3785281E-04  0.3636917E-04
 0.3946246E-04  0.3805651E-04  0.4133251E-04  0.3990336E-04  0.4321190E-04
 0.4192356E-04  0.4523946E-04  0.4397001E-04  0.4748121E-04  0.4631151E-04
 0.4981011E-04  0.4866246E-04  0.5224401E-04  0.5122236E-04  0.5482386E-04
 0.5389461E-04  0.5754651E-04  0.5670126E-04  0.6047601E-04  0.5956776E-04
 0.6334251E-04  0.6260016E-04  0.6645062E-04  0.6572821E-04  0.6947986E-04
 0.6888241E-04  0.7273391E-04  0.7208397E-04  0.7595847E-04  0.7541351E-04
 0.7925767E-04  0.7871272E-04  0.8244663E-04  0.8198778E-04  0.8578458E-04
 0.8520823E-04  0.8895779E-04  0.8845179E-04  0.9210788E-04  0.9148534E-04
 0.9507844E-04  0.9454095E-04  0.9804060E-04  0.9742960E-04  0.1008149E-03
 0.1002154E-03  0.1035240E-03  0.1029162E-03  0.1061959E-03  0.1056709E-03
 0.1089522E-03  0.1084545E-03  0.1119615E-03  0.1117053E-03  0.1153761E-03
 0.1155073E-03  0.1197336E-03  0.1206208E-03  0.1255191E-03  0.1274038E-03
 0.1334676E-03  0.1367068E-03  0.1443886E-03  0.1496964E-03  0.1595506E-03
 0.1676304E-03  0.1806451E-03  0.1921479E-03  0.2089741E-03  0.2250234E-03
 0.2469526E-03  0.2683894E-03  0.2962617E-03  0.3245329E-03  0.3595557E-03
 0.3955445E-03  0.4388412E-03  0.4835764E-03  0.5359767E-03  0.5903415E-03
 0.6527062E-03  0.7173075E-03  0.7897732E-03  0.8646330E-03  0.9471262E-03
 0.1031803E-02  0.1123384E-02  0.1216614E-02  0.1315944E-02  0.1415788E-02
 0.1520684E-02  0.1624518E-02  0.1731933E-02  0.1836607E-02  0.1942762E-02
 0.2044707E-02  0.2146137E-02  0.2241151E-02  0.2333761E-02  0.2417961E-02
 0.2497551E-02  0.2566630E-02  0.2629315E-02  0.2681175E-02  0.2725695E-02
 0.2758235E-02  0.2783434E-02  0.2796444E-02  0.2801274E-02  0.2793598E-02
 0.2778268E-02  0.2751483E-02  0.2716518E-02  0.2670727E-02  0.2620222E-02
 0.2561107E-02  0.2496312E-02  0.2423127E-02  0.2346992E-02  0.2264461E-02
 0.2183601E-02  0.2103276E-02  0.2027140E-02  0.1951540E-02  0.1881600E-02
 0.1811880E-02  0.1746454E-02  0.1682509E-02  0.1623384E-02  0.1563114E-02
 0.1505458E-02  0.1447393E-02  0.1393308E-02  0.1338078E-02  0.1285882E-02
 0.1233382E-02  0.1183287E-02  0.1128372E-02  0.1075557E-02  0.1023195E-02
 0.9729468E-03  0.9197800E-03  0.8694693E-03  0.8168286E-03  0.7669588E-03
 0.7187796E-03  0.6719653E-03  0.6206371E-03  0.5735814E-03  0.5255492E-03
 0.4747239E-03  0.4193532E-03  0.3688115E-03  0.3166737E-03  0.2644635E-03
 0.2110762E-03  0.1581720E-03  0.1045992E-03  0.6040608E-04  0.1440505E-04
-0.3358299E-04 -0.8185432E-04 -0.1264704E-03 -0.1719091E-03 -0.2152689E-03
-0.2663241E-03 -0.3162253E-03 -0.3654126E-03 -0.4136443E-03 -0.4572445E-03
-0.4915218E-03 -0.5332750E-03 -0.5743657E-03 -0.6126120E-03 -0.6488527E-03
-0.6863944E-03 -0.7236537E-03 -0.7607029E-03 -0.7886791E-03 -0.8368794E-03
-0.9050086E-03 -0.9627103E-03 -0.1010554E-02 -0.1070769E-02 -0.1130934E-02
-0.1196150E-02 -0.1250329E-02 -0.1284045E-02 -0.1320060E-02 -0.1370880E-02
-0.1409950E-02 -0.1447120E-02 -0.1485771E-02 -0.1521261E-02 -0.1561906E-02
-0.1615036E-02 -0.1657782E-02 -0.1701567E-02 -0.1747987E-02 -0.1779172E-02
-0.1798293E-02 -0.1833678E-02 -0.1864138E-02 -0.1882618E-02 -0.1914538E-02
-0.1965264E-02 -0.2001909E-02 -0.2034259E-02 -0.2070274E-02 -0.2110080E-02
-0.2148930E-02 -0.2176660E-02 -0.2185690E-02 -0.2205966E-02 -0.2227071E-02
-0.2237161E-02 -0.2260996E-02 -0.2302997E-02 -0.2327262E-02 -0.2348577E-02
-0.2377463E-02 -0.2407282E-02 -0.2431653E-02 -0.2454543E-02 -0.2483008E-02
-0.2511673E-02 -0.2500659E-02 -0.2477349E-02 -0.2475469E-02 -0.2472319E-02
-0.2451004E-02 -0.2432115E-02 -0.2414055E-02 -0.2396845E-02 -0.2363770E-02
```

Set3:
Acceleration Time Histories

deg

ϕ 264

NPTS = 15999
DT = 0.005

Time (sec)	FN Fault Normal	FP Fault Parallel	c-c' (ϕ rotate)
0.000	.326925E-03	.264608E-04	-.327900E-03
0.005	.322966E-03	.241402E-04	-.323720E-03
0.010	.326473E-03	.263955E-04	-.327444E-03
0.015	.322672E-03	.241379E-04	-.323427E-03
0.020	.326305E-03	.264552E-04	-.327283E-03
0.025	.322578E-03	.241346E-04	-.323334E-03
0.030	.326379E-03	.264686E-04	-.327358E-03
0.035	.322872E-03	.242488E-04	-.323638E-03
0.040	.326715E-03	.265829E-04	-.327704E-03
0.045	.323292E-03	.243515E-04	-.324066E-03
0.050	.327355E-03	.266930E-04	-.328352E-03
0.055	.324016E-03	.245876E-04	-.324811E-03
0.060	.328258E-03	.269721E-04	-.329279E-03
0.065	.325098E-03	.247964E-04	-.325909E-03
0.070	.329424E-03	.272156E-04	-.330464E-03
0.075	.326410E-03	.251533E-04	-.327251E-03
0.080	.330862E-03	.276196E-04	-.331937E-03
0.085	.327922E-03	.255489E-04	-.328796E-03
0.090	.332616E-03	.280238E-04	-.333723E-03
0.095	.329781E-03	.260234E-04	-.330695E-03
0.100	.334579E-03	.285685E-04	-.335732E-03
0.105	.331860E-03	.265294E-04	-.332815E-03
0.110	.336774E-03	.291680E-04	-.337978E-03
0.115	.334149E-03	.272076E-04	-.335162E-03
0.120	.339294E-03	.298776E-04	-.340558E-03
0.125	.336732E-03	.279792E-04	-.337812E-03
0.130	.342108E-03	.306566E-04	-.343438E-03
0.135	.339556E-03	.287897E-04	-.340705E-03
0.140	.345069E-03	.315847E-04	-.346480E-03
0.145	.342643E-03	.297651E-04	-.343877E-03
0.150	.348313E-03	.325832E-04	-.349811E-03
0.155	.345898E-03	.308496E-04	-.347228E-03
0.160	.351778E-03	.337465E-04	-.353378E-03
0.165	.349447E-03	.320434E-04	-.350882E-03
0.170	.355453E-03	.349561E-04	-.357160E-03
0.175	.353143E-03	.333946E-04	-.354699E-03
0.180	.359391E-03	.363850E-04	-.361225E-03
0.185	.357112E-03	.347838E-04	-.358792E-03
0.190	.363486E-03	.378528E-04	-.365451E-03
0.195	.361333E-03	.363692E-04	-.363155E-03
0.200	.367843E-03	.394625E-04	-.369953E-03
0.205	.365733E-03	.380565E-04	-.367707E-03
0.210	.372621E-03	.413325E-04	-.374900E-03
0.215	.370479E-03	.399034E-04	-.372621E-03
0.220	.377398E-03	.432119E-04	-.379847E-03

```
Set3:
    15999    .00500
-.327900E-03  -.323720E-03  -.327444E-03  -.323427E-03  -.327283E-03  -.323334E-03  -.327358E-03  -.323638E-03
-.327704E-03  -.324066E-03  -.328352E-03  -.324811E-03  -.329279E-03  -.325909E-03  -.330464E-03  -.327251E-03
-.331937E-03  -.328796E-03  -.333723E-03  -.330695E-03  -.335732E-03  -.332815E-03  -.337978E-03  -.335162E-03
-.340558E-03  -.337812E-03  -.343438E-03  -.340705E-03  -.346480E-03  -.343877E-03  -.349811E-03  -.347228E-03
-.353378E-03  -.350882E-03  -.357160E-03  -.354699E-03  -.361225E-03  -.358792E-03  -.365451E-03  -.363155E-03
-.369953E-03  -.367707E-03  -.374900E-03  -.372621E-03  -.379847E-03  -.377698E-03  -.385187E-03  -.383080E-03
-.390852E-03  -.388901E-03  -.396932E-03  -.395027E-03  -.403179E-03  -.401706E-03  -.410416E-03  -.408731E-03
-.417957E-03  -.416585E-03  -.426221E-03  -.425051E-03  -.435198E-03  -.434290E-03  -.445130E-03  -.444501E-03
-.455879E-03  -.455681E-03  -.467758E-03  -.468003E-03  -.480498E-03  -.481749E-03  -.495454E-03  -.496870E-03
-.511618E-03  -.513847E-03  -.529710E-03  -.532824E-03  -.549840E-03  -.553964E-03  -.572338E-03  -.577286E-03
-.596938E-03  -.602970E-03  -.623929E-03  -.630976E-03  -.653238E-03  -.661185E-03  -.684619E-03  -.693338E-03
-.717657E-03  -.726958E-03  -.752133E-03  -.761897E-03  -.788287E-03  -.799099E-03  -.826727E-03  -.838510E-03
-.867480E-03  -.880156E-03  -.910419E-03  -.923919E-03  -.955306E-03  -.970201E-03  -.100447E-02  -.102301E-02
-.106177E-02  -.108506E-02  -.112945E-02  -.115874E-02  -.121042E-02  -.124749E-02  -.130816E-02  -.135489E-02
-.142494E-02  -.147844E-02  -.155384E-02  -.161221E-02  -.169234E-02  -.175456E-02  -.181783E-02  -.190199E-02
-.198620E-02  -.204976E-02  -.213180E-02  -.219047E-02  -.226520E-02  -.231331E-02  -.237708E-02  -.241544E-02
-.246874E-02  -.249484E-02  -.253379E-02  -.254266E-02  -.256172E-02  -.254854E-02  -.254345E-02  -.250408E-02
-.247125E-02  -.240318E-02  -.234185E-02  -.224539E-02  -.215639E-02  -.203505E-02  -.192434E-02  -.178336E-02
-.165591E-02  -.150309E-02  -.136946E-02  -.121603E-02  -.108765E-02  -.944495E-03  -.832254E-03  -.712301E-03
-.626451E-03  -.534555E-03  -.479361E-03  -.420771E-03  -.402240E-03  -.378801E-03  -.389712E-03  -.395047E-03
-.431550E-03  -.448769E-03  -.487426E-03  -.501421E-03  -.527684E-03  -.531862E-03  -.559149E-03  -.560819E-03
-.578343E-03  -.569934E-03  -.577596E-03  -.567830E-03  -.581433E-03  -.565029E-03  -.565014E-03  -.546933E-03
-.544317E-03  -.514330E-03  -.506700E-03  -.474546E-03  -.454079E-03  -.412694E-03  -.395039E-03  -.352539E-03
-.330243E-03  -.288365E-03  -.266576E-03  -.225748E-03  -.211264E-03  -.175877E-03  -.160602E-03  -.127912E-03
-.119912E-03  -.936809E-04  -.914179E-04  -.720324E-04  -.770482E-04  -.635330E-04  -.752978E-04  -.710523E-04
-.910197E-04  -.921860E-04  -.118279E-03  -.128901E-03  -.160792E-03  -.163778E-03  -.184418E-03  -.191963E-03
-.223460E-03  -.230055E-03  -.262801E-03  -.276555E-03  -.303880E-03  -.325789E-03  -.395662E-03  -.439168E-03
-.493668E-03  -.537424E-03  -.600339E-03  -.631958E+01  -.699621E-03  -.745374E-03  -.789328E-03  -.906487E-03
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-.123084E-02  -.127141E-02  -.134255E-02  -.139641E-02  -.146922E-02  -.152093E-02  -.159440E-02  -.164753E-02
-.171643E-02  -.175930E-02  -.182963E-02  -.187961E-02  -.193309E-02  -.195523E-02  -.200549E-02  -.203616E-02
-.208095E-02  -.210007E-02  -.213904E-02  -.216799E-02  -.222333E-02  -.224784E-02  -.229158E-02  -.231026E-02
-.233408E-02  -.233711E-02  -.236412E-02  -.236188E-02  -.238238E-02  -.236307E-02  -.234914E-02  -.232733E-02
-.231777E-02  -.227019E-02  -.228658E-02  -.231001E-02  -.231856E-02  -.229853E-02  -.231684E-02  -.230628E-02
-.231955E-02  -.230308E-02  -.226967E-02  -.221063E-02  -.218344E-02  -.212692E-02  -.208979E-02  -.203788E-02
-.200509E-02  -.192840E-02  -.183937E-02  -.173476E-02  -.166371E-02  -.155412E-02  -.146468E-02  -.134521E-02
-.123470E-02  -.116641E-02  -.116920E-02  -.109969E-02  -.103016E-02  -.991962E-03  -.978316E-03  -.923221E-03
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 .170214E-04   .148038E-03   .272186E-03   .426915E-03   .555805E-03   .683028E-03   .769772E-03   .892819E-03
 .100588E-02   .109296E-02   .111254E-02   .117435E-02   .123618E-02   .129119E-02   .130788E-02   .137609E-02
 .146942E-02   .156831E-02   .155313E-02   .154357E-02   .162447E-02   .175985E-02   .179491E-02   .184178E-02
 .190711E-02   .197923E-02   .201643E-02   .208446E-02   .211647E-02   .217033E-02   .223917E-02   .230064E-02
 .226530E-02   .226113E-02   .227398E-02   .227624E-02   .222272E-02   .220643E-02   .218218E-02   .212991E-02
 .205482E-02   .211782E-02   .216222E-02   .213527E-02   .216134E-02   .218769E-02   .194632E-02   .170338E-02
 .159462E-02   .144203E-02   .116494E-02   .101156E-02   .900481E-03   .715481E-03   .576171E-03   .697314E-03
 .795723E-03   .748888E-03   .764522E-03   .924022E-03   .830806E-03   .518478E-03   .285225E-03   .144191E-03
-.115642E-03  -.357306E-03  -.626704E-03  -.902164E-03  -.103783E-02  -.102968E-02  -.117541E-02  -.141968E-02
-.162528E-02  -.172326E-02  -.181944E-02  -.191873E-02  -.211779E-02  -.235126E-02  -.255130E-02  -.271088E-02
-.294208E-02  -.311126E-02  -.331231E-02  -.352732E-02  -.352306E-02  -.331535E-02  -.328114E-02  -.328223E-02
-.310724E-02  -.281554E-02  -.285224E-02  -.326228E-02  -.357304E-02  -.361901E-02  -.386888E-02  -.419710E-02
-.437096E-02  -.452889E-02  -.471604E-02  -.465282E-02  -.453217E-02  -.452614E-02  -.452536E-02  -.438720E-02
-.432117E-02  -.425797E-02  -.404423E-02  -.375007E-02  -.354742E-02  -.326995E-02  -.309784E-02  -.312469E-02
-.312067E-02  -.298443E-02  -.287645E-02  -.267467E-02  -.243468E-02  -.223153E-02  -.219541E-02  -.223846E-02
-.222601E-02  -.215250E-02  -.214614E-02  -.212461E-02  -.216253E-02  -.207873E-02  -.181373E-02  -.158913E-02
-.142832E-02  -.114723E-02  -.109644E-02  -.121586E-02  -.118234E-02  -.107948E-02  -.111080E-02  -.111511E-02
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 .299541E-03   .466387E-03   .524301E-03   .670251E-03   .967072E-03   .119244E-02   .135904E-02   .165005E-02
 .164939E-02   .144034E-02   .141974E-02   .143242E-02   .126126E-02   .120542E-02   .106447E-02   .839401E-03
 .106525E-02   .165272E-02   .186610E-02   .200190E-02   .244009E-02   .284084E-02   .300027E-02   .312265E-02
 .297301E-02   .267231E-02   .254056E-02   .244446E-02   .212940E-02   .190070E-02   .175114E-02   .146574E-02
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 .109216E-02   .919265E-03   .589501E-03   .382878E-03   .183447E-03  -.126206E-03  -.365526E-03  -.576016E-03
-.108290E-02  -.110104E-02  -.283132E-03   .305204E-03   .448701E-03   .915636E-03   .137916E-02   .191421E-02
 .258072E-02   .236344E-02   .143838E-02   .118295E-02   .116569E-02   .728173E-03   .316209E-03  -.877099E-05
-.537909E-03  -.663897E-03  -.357418E-03  -.283531E-03  -.426520E-03  -.366109E-03  -.446713E-03  -.630994E-03
-.482493E-03  -.114059E-03  -.222389E-05   .678546E-04   .336430E-03   .669547E-03   .813695E-03   .907978E-03
 .111305E-02   .148792E-02   .179195E-02   .210215E-02   .247779E-02   .258691E-02   .259016E-02   .309152E-02
 .302318E-02   .185444E-02   .995696E-03   .630239E-03  -.138432E-03  -.680573E-03  -.902658E-03  -.130482E-02
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-.550415E-03  -.153894E-03  -.162294E-03  -.721399E-03  -.101566E-02  -.100266E-02  -.130392E-02  -.174150E-02
-.185388E-02  -.171805E-02  -.194174E-02  -.203260E-02  -.136783E-02  -.631444E-03  -.335666E-03   .673797E-04
 .698070E-03   .141479E-02   .165728E-02   .123723E-02   .899444E-03   .890612E-03   .646830E-03   .383654E-03
 .122556E-03  -.308448E-03  -.151652E-03   .185059E-03   .221194E-03   .429565E-03   .908618E-03   .122658E-02
 .148126E-02   .189044E-02   .223096E-02   .260540E-02   .295152E-02   .316351E-02   .342727E-02   .387806E-02
 .419976E-02   .456224E-02   .499276E-02   .494895E-02   .443523E-02   .410920E-02   .339142E-02   .227544E-02
 .254712E-02   .406218E-02   .471974E-02   .505213E-02   .591798E-02   .694233E-02   .807455E-02   .812675E-02
 .655689E-02   .578054E-02   .608248E-02   .568511E-02   .479511E-02   .441647E-02   .427893E-02   .401557E-02
 .361504E-02   .331219E-02   .304625E-02   .277129E-02   .268637E-02   .305859E-02   .357502E-02   .391051E-02
 .407134E-02   .454502E-02   .521097E-02   .505654E-02   .418533E-02   .390651E-02   .366714E-02   .316168E-02
 .353262E-02   .425858E-02   .429460E-02   .447562E-02   .492132E-02   .528979E-02   .576321E-02   .589339E-02
 .542697E-02   .538123E-02   .556537E-02   .508295E-02   .441274E-02   .401202E-02   .348904E-02   .329679E-02
 .256820E-02   .590587E-03   .593564E-04   .136843E-02   .136216E-02   .103555E-02   .145588E-02   .324309E-03
-.163438E-02  -.250995E-02  -.326915E-02  -.410602E-02  -.501580E-02  -.587523E-02  -.578186E-02  -.560737E-02
-.596244E-02  -.586494E-02  -.639111E-02  -.773506E-02  -.875020E-02  -.975904E-02  -.983498E-02  -.820280E-02
-.725219E-02  -.731738E-02  -.655456E-02  -.490950E-02  -.370914E-02  -.353884E-02  -.388361E-02  -.416866E-02
-.454921E-02  -.483145E-02  -.512361E-02  -.580562E-02  -.679151E-02  -.768026E-02  -.837051E-02  -.908420E-02
-.102941E-01  -.109723E-01  -.996002E-02  -.907748E-02  -.971565E-02  -.882253E-02  -.558793E-02  -.346254E-02
-.263276E-02  -.724110E-03   .154649E-02   .344270E-02   .530226E-02   .661559E-02   .802522E-02   .102216E-01
 .112059E-01   .119036E-01   .147581E-01   .164294E-01   .148053E-01   .140867E-01   .149397E-01   .148297E-01
 .141159E-01   .136199E-01   .133472E-01   .135164E-01   .133360E-01   .128199E-01   .129120E-01   .133112E-01
 .131026E-01   .126210E-01   .126058E-01   .129898E-01   .123584E-01   .107364E-01   .997177E-02   .943927E-02
 .783314E-02   .780057E-02   .983446E-02   .106726E-01   .107151E-01   .120482E-01   .128481E-01   .122170E-01
 .117132E-01   .113178E-01   .104090E-01   .980029E-02   .919885E-02   .785678E-02   .671248E-02   .637829E-02
```

Attachment D

SHAKE

Input and Output Excerpts

(see Table 8-6 for listing of files)

```
16384        0.5
    8
    7    1   10       100.
   11 100. #1 modulus for Clay PI 15 (Vucetic and Dobry 1991)
0.0001     0.000316  0.001     0.00316   0.01      0.0316    0.1       0.316
1.         3.16      10.
1.000      1.000     1.000     .94       .82       .64       .40       .21
.09        .04       .02
   11   1.  damping for Clay PI 15 (Vucetic & Dobry 1991)
0.0001     0.000316  0.001     0.00316   0.01      0.0316    0.1       0.316
1.         3.16      10.
1.7        1.7       1.7       2.6       4.5       7.8       11.7      16.3
20.2       23.0      23.0
   11 100. #2 modulus for Sand (20 to 50 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.000      0.999     0.991     0.953     0.830     0.620     0.364     0.181
0.071      0.025     0.010
   11   1.  damping for Sand (20 to 50 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.250      1.300     1.455     2.080     3.750     6.925     12.600    18.905
24.840     27.2      28.9
   11 100. #3 modulus for Sand (50 to 120 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.000      1.000     0.995     0.972     0.879     0.701     0.442     0.230
0.097      0.037     0.014
   11   1.  damping for Sand (50 to 120 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.090      1.145     1.300     1.665     2.865     5.415     10.465    16.560
22.915     25.5      27.0
   11 100. #4 modulus for Sand (120 to 250 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.000      1.000     0.996     0.980     0.910     0.756     0.510     0.283
0.122      0.050     0.019
   11   1.  damping for Sand (120 to 250 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
0.935      0.935     1.090     1.455     2.340     4.375     8.695     14.580
21.250     23.8      25.5
   11 100. #5 modulus for Sand (250 to 500 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.000      1.000     0.997     0.986     0.932     0.809     0.573     0.338
0.152      0.067     0.025
   11   1.  damping for Sand (250 to 500 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
0.800      0.800     0.900     1.145     1.875     3.490     7.185     12.705
19.270     22.4      24.0
   11 100. #6 modulus for Sand (> 500 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.000      1.000     0.998     0.991     0.955     0.860     0.658     0.417
0.207      0.083     0.032
   11   1.  damping for Sand (> 500 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
0.570      0.625     0.625     0.850     1.280     2.500     5.520     10.260
16.770     20.2      22.5
```

```
   11 100. #7 modulus for Weathered Rock
0.0001     0.0003     0.001      0.003      0.01       0.03       0.1        0.3
1.         3.         10.
1.000      1.000      1.000      0.990      0.960      0.900      0.75       0.55
0.34       0.2        0.12
   11   1.  damping for Weathered Rock
0.0001     0.0003     0.001      0.003      0.01       0.03       0.1        0.3
1.         3.         10.
0.24       0.42       0.8        1.4        2.8        5.1        9.8        15.5
21.        25.        28.
    2
    1   25    4 Transporter Route, HBPP, ISFSI, 08/2002
    1    1    1       1.0                  .05        .125       915.              1.
    2    1    1       2.0                  .05        .125       915.              1.
    3    1    1       3.0                  .05        .125       915.              1.
    4    1    1       2.0                  .05        .125       915.              1.
    5    1    1       2.0                  .05        .125       915.              1.
    6    1    1       2.0                  .05        .125       915.              1.
    7    1    1       2.0                  .05        .125       915.              1.
    8    1    1       2.0                  .05        .125       915.              1.
    9    1    1       2.0                  .05        .130      1220.              1.
   10    1    1       3.0                  .05        .130      1220.              1.
   11    1    1       3.0                  .05        .130      1220.              1.
   12    2    1       5.0                  .05        .130         1.       120.   1.
   13    2    1       4.0                  .05        .130         1.       135.   1.
   14    2    1       4.0                  .05        .130         1.       135.   1.
   15    2    1       4.0                  .05        .130         1.       128.   1.
   16    2    1       4.0                  .05        .130         1.       128.   1.
   17    1    1       5.0                  .05        .130      1830.              1.
   18    1    1       5.0                  .05        .130      1830.              1.
   19    3    1       5.0                  .05        .130         1.       188.   1.
   20    3    1       5.0                  .05        .130         1.       188.   1.
   21    3    1       5.0                  .05        .130         1.       188.   1.
   22    3    1       5.0                  .05        .130         1.       188.   1.
   23    3    1       5.0                  .05        .130         1.       188.   1.
   24    3    1       5.0                  .05        .130         1.       188.   1.
   25                                      .05        .130      1800.              1.
    1
1599916384       .005    2(8E15.7) SET 1, SECTION C-C, 08/2002
      1.                    2.5
S1CC.AC8
    3
    1    0
    4
    0   30         2.       0.65
    5
    1    2    3    4    5    6    7    8    9   10   11   12   13   14   15
    0    1    1    1    1    1    1    1    1    1    1    1    1    1    1
    1    0    0    0    0    0    0    0    0    0    0    0    0    0    0
    5
   16   17   18   19   20   21   22   23   24   25   25
    1    1    1    1    1    1    1    1    1    1    0
    0    0    0    0    0    0    0    0    0    0    1
    0
```

Set1:
15999 .00500

.219191E-03	.213380E-03	.219010E-03	.213343E-03	.219099E-03	.213500E-03	.219322E-03	.213777E-03
.219807E-03	.214354E-03	.220446E-03	.215164E-03	.221326E-03	.216166E-03	.222504E-03	.217404E-03
.223815E-03	.218814E-03	.225436E-03	.220502E-03	.227232E-03	.222393E-03	.229263E-03	.224556E-03
.231560E-03	.226922E-03	.234029E-03	.229420E-03	.236633E-03	.232236E-03	.239613E-03	.235131E-03
.242577E-03	.238237E-03	.245883E-03	.241540E-03	.249306E-03	.245006E-03	.252973E-03	.248611E-03
.256663E-03	.252410E-03	.260499E-03	.256355E-03	.264650E-03	.260539E-03	.268957E-03	.264818E-03
.273460E-03	.269436E-03	.278285E-03	.274376E-03	.283443E-03	.279730E-03	.289086E-03	.285402E-03
.295122E-03	.291758E-03	.301811E-03	.298761E-03	.309367E-03	.306712E-03	.317953E-03	.315733E-03
.327827E-03	.326292E-03	.339171E-03	.338494E-03	.352496E-03	.352805E-03	.368169E-03	.369701E-03
.386454E-03	.389444E-03	.408086E-03	.412837E-03	.433554E-03	.440338E-03	.461523E-03	.472694E-03
.498535E-03	.510456E-03	.539389E-03	.554601E-03	.587307E-03	.606146E-03	.643003E-03	.666189E-03
.707843E-03	.736064E-03	.783233E-03	.817171E-03	.870724E-03	.911516E-03	.972446E-03	.102068E-02
.108984E-02	.114677E-02	.122508E-02	.129132E-02	.137966E-02	.145647E-02	.155610E-02	.164495E-02
.175707E-02	.185855E-02	.198413E-02	.209962E-02	.223945E-02	.236951E-02	.252442E-02	.266969E-02
.284046E-02	.300196E-02	.318920E-02	.336717E-02	.357105E-02	.376582E-02	.398597E-02	.419662E-02
.443288E-02	.465851E-02	.490859E-02	.514688E-02	.540830E-02	.565600E-02	.592554E-02	.618123E-02
.645799E-02	.671918E-02	.699985E-02	.726281E-02	.754348E-02	.780465E-02	.808113E-02	.833602E-02
.860442E-02	.894887E-02	.910472E-02	.933450E-02	.957398E-02	.978551E-02	.100054E-01	.101956E-01
.103920E-01	.105558E-01	.107241E-01	.108588E-01	.109962E-01	.110985E-01	.112029E-01	.112711E-01
.111405E-01	.113730E-01	.114055E-01	.114013E-01	.113959E-01	.113538E-01	.113128E-01	.112344E-01
.111658E-01	.110777E-01	.110074E-01	.109171E-01	.108448E-01	.107526E-01	.106770E-01	.105803E-01
.104992E-01	.103965E-01	.103096E-01	.102004E-01	.101058E-01	.998903E-02	.988755E-02	.976351E-02
.965547E-02	.952770E-02	.941790E-02	.928818E-02	.917505E-02	.904302E-02	.892781E-02	.879284E-02
.867833E-02	.854525E-02	.842754E-02	.829220E-02	.817755E-02	.804256E-02	.792412E-02	.778643E-02
.766677E-02	.752578E-02	.739988E-02	.725414E-02	.712498E-02	.697746E-02	.684912E-02	.669820E-02
.656688E-02	.642527E-02	.630584E-02	.616823E-02	.605089E-02	.591312E-02	.578379E-02	.562626E-02
.548443E-02	.532568E-02	.518977E-02	.504120E-02	.492321E-02	.479012E-02	.467870E-02	.455226E-02
.445526E-02	.435140E-02	.426753E-02	.416554E-02	.407482E-02	.393711E-02	.379258E-02	.362435E-02
.347556E-02	.331170E-02	.318417E-02	.305929E-02	.296008E-02	.283573E-02	.271288E-02	.255131E-02
.239760E-02	.223332E-02	.210420E-02	.196682E-02	.185476E-02	.173428E-02	.163892E-02	.152545E-02
.141083E-02	.132354E-02	.125141E-02	.117084E-02	.110228E-02	.101280E-02	.942176E-03	.839481E-03
.725878E-03	.564868E-03	.435682E-03	.315667E-03	.187444E-03	.127444E-04	-.121941E-03	-.276078E-03
-.444485E-03	-.635384E-03	-.786544E-03	-.936205E-03	-.106082E-02	-.121304E-02	-.133143E-02	-.141525E-02
-.143179E-02	-.143490E-02	-.137888E-02	-.137490E-02	-.145004E-02	-.156014E-02	-.161093E-02	-.170069E-02
-.180100E-02	-.190414E-02	-.198351E-02	-.210996E-02	-.222700E-02	-.236713E-02	-.249925E-02	-.260399E-02
-.264841E-02	-.271382E-02	-.275684E-02	-.284692E-02	-.299212E-02	-.328961E-02	-.368870E-02	-.405905E-02
-.429772E-02	-.444085E-02	-.443058E-02	-.441119E-02	-.441058E-02	-.445800E-02	-.450511E-02	-.454011E-02
-.452517E-02	-.447211E-02	-.438663E-02	-.443531E-02	-.451745E-02	-.465853E-02	-.493045E-02	-.524592E-02
-.540699E-02	-.544265E-02	-.532612E-02	-.518889E-02	-.521017E-02	-.550806E-02	-.585667E-02	-.615923E-02
-.640946E-02	-.664936E-02	-.683618E-02	-.683775E-02	-.645270E-02	-.596375E-02	-.556670E-02	-.533916E-02
-.526878E-02	-.536468E-02	-.566068E-02	-.606751E-02	-.624750E-02	-.625948E-02	-.607697E-02	-.571894E-02
-.542195E-02	-.553288E-02	-.606324E-02	-.661655E-02	-.672706E-02	-.671469E-02	-.683180E-02	-.681328E-02
-.662415E-02	-.668509E-02	-.692349E-02	-.749943E-02	-.866303E-02	-.990494E-02	-.106417E-01	-.111408E-01
-.116204E-01	-.121226E-01	-.123006E-01	-.119448E-01	-.115164E-01	-.113459E-01	-.112820E-01	-.116831E-01
-.122096E-01	-.119467E-01	-.107644E-01	-.936433E-02	-.834058E-02	-.753094E-02	-.646221E-02	-.576238E-02
-.575829E-02	-.584856E-02	-.562570E-02	-.533441E-02	-.506289E-02	-.467805E-02	-.440997E-02	-.508154E-02
-.656024E-02	-.790267E-02	-.893714E-02	-.103810E-01	-.121059E-01	-.135977E-01	-.149391E-01	-.163420E-01
-.173229E-01	-.173235E-01	-.162786E-01	-.149148E-01	-.136370E-01	-.122652E-01	-.107171E-01	-.933538E-02
-.833580E-02	-.778326E-02	-.747138E-02	-.769000E-02	-.847867E-02	-.910313E-02	-.962807E-02	-.107933E-01
-.122589E-01	-.137476E-01	-.157586E-01	-.188452E-01	-.216126E-01	-.219298E-01	-.194469E-01	-.148827E-01
-.992154E-02	-.677640E-02	-.542650E-02	-.498338E-02	-.475514E-02	-.403976E-02	-.216774E-02	.826407E-03
.359371E-02	.495785E-02	.499284E-02	.412139E-02	.320538E-02	.175324E-02	-.124208E-02	-.442772E-02
-.607180E-02	-.709271E-02	-.870530E-02	-.110079E-01	-.133388E-01	-.147800E-01	-.154665E-01	-.160706E-01
-.157959E-01	-.134800E-01	-.957128E-02	-.646877E-02	-.444723E-02	-.174127E-02	.463716E-03	.203122E-03
-.809933E-03	-.114430E-02	-.221450E-02	-.428699E-02	-.533341E-02	-.612499E-02	-.899175E-02	-.130064E-01
-.149220E-01	-.126531E-01	-.781025E-02	-.346810E-02	.401348E-03	.212930E-02	-.137059E-02	-.714542E-02
-.115132E-01	-.152401E-01	-.157572E-01	-.108434E-01	-.602421E-02	-.390798E-02	-.122406E-02	-.228059E-03
-.282871E-02	-.496712E-02	-.733342E-02	-.143048E-01	-.231641E-01	-.286805E-01	-.306815E-01	-.314055E-01
-.311913E-01	-.292342E-01	-.265236E-01	-.249246E-01	-.238873E-01	-.231462E-01	-.218624E-01	-.178065E-01
-.128238E-01	-.953561E-02	-.776251E-02	-.975236E-02	-.155589E-01	-.207328E-01	-.240607E-01	-.265700E-01
-.268565E-01	-.242296E-01	-.208848E-01	-.191512E-01	-.180017E-01	-.165304E-01	-.159390E-01	-.159688E-01
-.166741E-01	-.187227E-01	-.195259E-01	-.163177E-01	-.948142E-02	-.397398E-02	-.306501E-02	-.295422E-02
-.362051E-02	-.942032E-02	-.166201E-01	-.200375E-01	-.198481E-01	-.166373E-01	-.131723E-01	-.136970E-01
-.165369E-01	-.178326E-01	-.166890E-01	-.139908E-01	-.133554E-01	-.177237E-01	-.244015E-01	-.325858E-01
-.438117E-01	-.544571E-01	-.602783E-01	-.587466E-01	-.489066E-01	-.374003E-01	-.291508E-01	-.220420E-01
-.176506E-01	-.178449E-01	-.177714E-01	-.143039E-01	-.980145E-02	-.661621E-02	-.521649E-02	-.677982E-02
-.127783E-01	-.233225E-01	-.342466E-01	-.396194E-01	-.398934E-01	-.389467E-01	-.360505E-01	-.297901E-01
-.224813E-01	-.170497E-01	-.132446E-01	-.918891E-02	-.406571E-02	-.354946E-03	-.429523E-04	.728530E-03
.382428E-02	.577729E-02	.863643E-02	.155456E-01	.227946E-01	.259929E-01	.233226E-01	.167193E-01
.107828E-01	.610319E-02	.287137E-02	.840387E-03	-.289829E-02	-.814170E-02	-.146872E-01	-.227632E-01
-.298494E-01	-.345604E-01	-.341413E-01	-.305224E-01	-.295288E-01	-.282031E-01	-.251366E-01	-.221129E-01
-.138004E-01	-.256124E-02	.266922E-02	.286039E-02	.300939E-02	.351427E-02	.276705E-02	.301251E-02
.878229E-02	.179906E-01	.257796E-01	.287299E-01	.250658E-01	.193326E-01	.185061E-01	.261400E-01
.403750E-01	.528671E-01	.576135E-01	.522466E-01	.359817E-01	.144466E-01	-.793545E-02	-.303118E-01
-.460219E-01	-.532193E-01	-.576322E-01	-.572600E-01	-.474668E-01	-.287538E-01	-.748861E-02	.356010E-02
.498730E-02	.950869E-02	.153745E-01	.159713E-01	.252244E-01	.153952E-01	.154345E-01	.151586E-01
.148523E-01	.153778E-01	.138077E-01	.899166E-02	.418621E-02	-.411054E-02	-.167064E-01	-.269933E-01
-.349891E-01	-.427130E-01	-.478657E-01	-.530127E-01	-.661993E-01	-.879693E-01	-.106418E+00	-.112128E+00
-.105441E+00	-.891979E-01	-.647931E-01	-.364531E-01	-.137026E-01	-.113577E-02	.388709E-02	.351100E-02
.480178E-02	.144334E-01	.277478E-01	.382070E-01	.443601E-01	.446668E-01	.377657E-01	.276928E-01
.206962E-01	.155115E-01	.936150E-02	.413967E-02	-.224610E-02	-.127576E-01	-.242939E-01	-.360695E-01
-.470908E-01	-.527373E-01	-.538173E-01	-.519296E-01	-.472196E-01	-.465931E-01	-.520231E-01	-.581822E-01
-.646720E-01	-.688505E-01	-.648944E-01	-.569782E-01	-.529562E-01	-.514205E-01	-.464456E-01	-.398707E-01
-.348192E-01	-.271408E-01	-.182313E-01	-.154838E-01	-.179166E-01	-.228791E-01	-.299507E-01	-.351538E-01
-.367809E-01	-.353957E-01	-.304160E-01	-.246157E-01	-.189167E-01	-.128961E-01	-.882497E-02	-.456569E-02
.175696E-02	.745985E-02	.139605E-01	.236244E-01	.336982E-01	.395697E-01	.411357E-01	.388089E-01
.295571E-01	.168741E-01	.655350E-02	-.557749E-02	-.219830E-01	-.339471E-01	-.335305E-01	-.267833E-01
-.228484E-01	-.189125E-01	-.127015E-01	-.993236E-02	-.138757E-01	-.237629E-01	-.345264E-01	-.423057E-01
-.459443E-01	-.409218E-01	-.296046E-01	-.219687E-01	-.183009E-01	-.150790E-01	-.190002E-01	-.331756E-01
-.466716E-01	-.529998E-01	-.515748E-01	-.408784E-01	-.285249E-01	-.211800E-01	-.152687E-01	-.917764E-02
-.239478E-02	.260014E-02	.244457E-02	.445127E-02	.126885E-01	.219733E-01	.308310E-01	.371886E-01
.385657E-01	.362140E-01	.328869E-01	.311947E-01	.312852E-01	.328526E-01	.366703E-01	.389292E-01
.385530E-01	.334424E-01	.220179E-01	.117203E-01	.421014E-02	-.546845E-02	-.121845E-01	-.117425E-01

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          ********************************************
          ********************************************
          **                                        **
          ** SHAKE -- A COMPUTER PROGRAM FOR        **
          **          EARTHQUAKE RESPONSE ANALYSIS  **
          **          OF HORIZONTALLY LAYERED SITES **
          **                                        **
          **                                        **
          ** MS-DOS VERSION - CONVERTED TO IBM-PC BY **
          **                  Shyh-Shiun Lai, WCC   **
          **                  January 1985          **
          **                                        **
          ** (Modified to Use 16384 Points and 100  **
          **  Soil Layers, S.J. Chiou, August 1995) **
          **                                        **
          ********************************************
          ********************************************
 Output file name : TR1C.OUT
 Start time : 19``/``/`` --        ````
 Start time : 19``/``/`` --

  MAX. NUMBER OF TERMS IN FOURIER TRANSFORM =     16384
  NECESSARY LENGTH OF BLANK COMMON X        =    102419
  EARTH PRESSURE AT REST FOR SAND           =     0.500
1*******  OPTION  8  ***  READ RELATION BETWEEN SOIL PROPERTIES AND STRAIN

   CURVES FOR RELATION STRAIN VERSUS SHEAR MODULUS AND DAMPING
```

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
1	0.000100	1.000	0.000100	1.7
1	0.000316	1.000	0.000316	1.7
1	0.001000	1.000	0.001000	1.7
1	0.003160	0.940	0.003160	2.6
1	0.010000	0.820	0.010000	4.5
1	0.031600	0.640	0.031600	7.8
1	0.100000	0.400	0.100000	11.7
1	0.316000	0.210	0.316000	16.3
1	1.000000	0.090	1.000000	20.2
1	3.160000	0.040	3.160000	23.0
1	10.000000	0.020	10.000000	23.0

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
2	0.000100	1.000	0.000100	1.3
2	0.000300	0.999	0.000300	1.3
2	0.001000	0.991	0.001000	1.5
2	0.003000	0.953	0.003000	2.1
2	0.010000	0.830	0.010000	3.8
2	0.030000	0.620	0.030000	6.9
2	0.100000	0.364	0.100000	12.6
2	0.300000	0.181	0.300000	18.9
2	1.000000	0.071	1.000000	24.8
2	3.000000	0.025	3.000000	27.2
2	10.000000	0.010	10.000000	28.9

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
3	0.000100	1.000	0.000100	1.1
3	0.000300	1.000	0.000300	1.1
3	0.001000	0.995	0.001000	1.3
3	0.003000	0.972	0.003000	1.7
3	0.010000	0.879	0.010000	2.9
3	0.030000	0.701	0.030000	5.4
3	0.100000	0.442	0.100000	10.5
3	0.300000	0.230	0.300000	16.6
3	1.000000	0.097	1.000000	22.9
3	3.000000	0.037	3.000000	25.5
3	10.000000	0.014	10.000000	27.0

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
4	0.000100	1.000	0.000100	0.9
4	0.000300	1.000	0.000300	0.9
4	0.001000	0.996	0.001000	1.1
4	0.003000	0.980	0.003000	1.5
4	0.010000	0.910	0.010000	2.3
4	0.030000	0.756	0.030000	4.4
4	0.100000	0.510	0.100000	8.7
4	0.300000	0.283	0.300000	14.6
4	1.000000	0.122	1.000000	21.3
4	3.000000	0.050	3.000000	23.8
4	10.000000	0.019	10.000000	25.5

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
5	0.000100	1.000	0.000100	0.5
5	0.000300	1.000	0.000300	0.8
5	0.001000	0.997	0.001000	0.9
5	0.003000	0.986	0.003000	1.1
5	0.010000	0.932	0.010000	1.9
5	0.030000	0.809	0.030000	3.5
5	0.100000	0.573	0.100000	7.2
5	0.300000	0.338	0.300000	12.7
5	1.000000	0.152	1.000000	19.3
5	3.000000	0.067	3.000000	22.4
5	10.000000	0.025	10.000000	24.0

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
6	0.000100	1.000	0.000100	0.6
6	0.000300	1.000	0.000300	0.6
6	0.001000	0.998	0.001000	0.6
6	0.003000	0.991	0.003000	0.9
6	0.010000	0.955	0.010000	1.3
6	0.030000	0.860	0.030000	2.5
6	0.100000	0.658	0.100000	5.5
6	0.300000	0.417	0.300000	10.3
6	1.000000	0.207	1.000000	16.8
6	3.000000	0.083	3.000000	20.2
6	10.000000	0.032	10.000000	22.5

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
7	0.000100	1.000	0.000100	0.2
7	0.000300	1.000	0.000300	0.4
7	0.001000	1.000	0.001000	0.8
7	0.003000	0.990	0.003000	1.4
7	0.010000	0.960	0.010000	2.8
7	0.030000	0.900	0.030000	5.1
7	0.100000	0.750	0.100000	9.8
7	0.300000	0.550	0.300000	15.5
7	1.000000	0.340	1.000000	21.0
7	3.000000	0.200	3.000000	25.0
7	10.000000	0.120	10.000000	28.0

1****** OPTION 2 *** READ SOIL PROFILE

NEW SOIL PROFILE NO. 1 IDENTIFICATION Transporter Route, HBPP, ISFSI, 08/

0NUMBER OF LAYERS 25 DEPTH TO BEDROCK 85.00
NUMBER OF FIRST SUBMERGED LAYER 4 DEPTH TO WATER LEVEL 6.00

LAYER	TYPE	MAX-MOD	THICKNESS	DEPTH	EFF. PRESS.	MODULUS	DAMPING	UNIT WEIGTH	SHEAR VEL	SVMAX
1	1	3250.097	1.00	0.50	0.063	3250.097	0.0500	0.1250	915.000	915.000
2	1	3250.097	2.00	2.00	0.250	3250.097	0.0500	0.1250	915.000	915.000
3	1	3250.097	3.00	4.50	0.563	3250.097	0.0500	0.1250	915.000	915.000
4	1	3250.097	2.00	7.00	0.813	3250.097	0.0500	0.1250	915.000	915.000
5	1	3250.097	2.00	9.00	0.938	3250.097	0.0500	0.1250	915.000	915.000
6	1	3250.097	2.00	11.00	1.063	3250.097	0.0500	0.1250	915.000	915.000
7	1	3250.097	2.00	13.00	1.188	3250.097	0.0500	0.1250	915.000	915.000
8	1	3250.097	2.00	15.00	1.313	3250.097	0.0500	0.1250	915.000	915.000
9	1	6009.068	2.00	17.00	1.444	6009.068	0.0500	0.1300	1220.000	1220.000
10	1	6009.068	3.00	19.50	1.613	6009.068	0.0500	0.1300	1220.000	1220.000
11	1	6009.068	3.00	22.50	1.815	6009.068	0.0500	0.1300	1220.000	1220.000
12	2	4474.783	5.00	26.50	2.086	4474.783	0.0500	0.1300	1052.791	1052.791
13	2	5388.738	4.00	31.00	2.390	5388.738	0.0500	0.1300	1155.313	1155.313
14	2	5685.408	4.00	35.00	2.660	5685.408	0.0500	0.1300	1186.689	1186.689
15	2	5657.928	4.00	39.00	2.931	5657.928	0.0500	0.1300	1183.818	1183.818
16	2	5913.175	4.00	43.00	3.201	5913.175	0.0500	0.1300	1210.226	1210.226
17	1	13520.403	5.00	47.50	3.505	13520.403	0.0500	0.1300	1830.000	1830.000
18	1	13520.403	5.00	52.50	3.843	13520.403	0.0500	0.1300	1830.000	1830.000
19	3	9925.974	5.00	57.50	4.181	9925.974	0.0500	0.1300	1567.988	1567.988
20	3	10319.356	5.00	62.50	4.519	10319.356	0.0500	0.1300	1598.757	1598.757
21	3	10698.285	5.00	67.50	4.857	10698.285	0.0500	0.1300	1627.846	1627.846
22	3	11064.243	5.00	72.50	5.195	11064.243	0.0500	0.1300	1655.454	1655.454
23	3	11418.479	5.00	77.50	5.533	11418.479	0.0500	0.1300	1681.746	1681.746
24	3	11762.051	5.00	82.50	5.871	11762.051	0.0500	0.1300	1706.859	1706.859
25	BASE					13081.	0.050	0.1300	1800.	

PERIOD = 0.25 FROM AVERAGE SHEARVEL. = 1366.

MAXIMUM AMPLIFICATION = 13.99
FOR FREQUENCY = 4.42 C/SEC.
PERIOD = 0.23 SEC.

1****** OPTION 1 *** READ INPUT MOTION

EARTHQUAKE - SECTION C-C, 08/2002

15999 ACCELERATION VALUES AT TIME INTERVAL 0.0050

THE VALUES ARE LISTED ROW BY ROW AS READ FROM CARDS
TRAILING ZEROS ARE ADDED TO GIVE A TOTAL OF16384 VALUES

MAXIMUM ACCELERATION = 1.66833
AT TIME = 23.25 SEC

THE VALUES WILL BE MULTIPLIED BY A FACTOR = 1.000
TO GIVE NEW MAXIMUM ACCELERATION = 1.66833

MEAN SQUARE FREQUENCY = 0.94 C/SEC.

MAX ACCELERATION = 1.59292 FOR FREQUENCIES REMOVED ABOVE 2.50 C/SEC.

1****** OPTION 3 *** READ WHERE OBJECT MOTION IS GIVEN

OBJECT MOTION IN LAYER NUMBER 1 OUTCROPPING

1****** OPTION 4 *** OBTAIN STRAIN COMPATIBLE SOIL PROPERTIES

MAXIMUM NUMBER OF ITERATIONS = 30
MAXIMUM ERROR IN PERCENT = 2.00
FACTOR FOR EFFECTIVE STRAIN IN TIME DOMAIN = 0.65

EARTHQUAKE - SECTION C-C, 08/2002
SOIL PROFILE - Transporter Route, HBPP, ISFSI, 08/

ITERATION NUMBER 1
THE CALCULATION HAS BEEN CARRIED OUT IN THE TIME DOMAIN WITH EFF. STRAIN = .65* MAX. STRAIN

LAYER	TYPE	DEPTH	EFF. STRAIN	NEW DAMP.	DAMP USED	ERROR	NEW G	G USED	ERROR	NEW Vs
1	1	0.5	0.00201	0.022	0.050	-122.7	3131.889	3250.097	-3.8	898.206
2	1	2.0	0.00803	0.041	0.050	-20.8	2739.178	3250.097	-18.7	840.007
3	1	4.5	0.01807	0.062	0.050	19.3	2364.109	3250.097	-37.5	780.381
4	1	7.0	0.02811	0.075	0.050	33.0	2139.572	3250.097	-51.9	742.397
5	1	9.0	0.03613	0.083	0.050	39.4	1989.317	3250.097	-63.4	715.855
6	1	11.0	0.04415	0.089	0.050	44.0	1853.659	3250.097	-75.3	691.016
7	1	13.0	0.05215	0.095	0.050	47.3	1740.805	3250.097	-86.7	669.650
8	1	15.0	0.06015	0.100	0.050	49.9	1644.213	3250.097	-97.7	650.807
9	1	17.0	0.03694	0.083	0.050	40.0	3650.352	6009.068	-64.6	950.875
10	1	19.5	0.04255	0.088	0.050	43.2	3473.374	6009.068	-73.0	927.539
11	1	22.5	0.04927	0.093	0.050	46.3	3289.757	6009.068	-82.7	902.689
12	2	26.5	0.07817	0.114	0.050	56.3	1863.125	4474.783	-140.2	679.325
13	2	31.0	0.07609	0.113	0.050	55.8	2274.616	5388.738	-136.9	750.603
14	2	35.0	0.08150	0.116	0.050	57.0	2316.848	5685.408	-145.4	757.539
15	2	39.0	0.09128	0.122	0.050	58.9	2169.278	5657.928	-160.8	733.017
16	2	43.0	0.09628	0.124	0.050	59.7	2200.065	5913.175	-168.8	738.200
17	1	47.5	0.04649	0.091	0.050	45.1	7565.703	13520.403	-78.7	1368.929
18	1	52.5	0.05134	0.094	0.050	47.1	7286.074	13520.403	-85.6	1343.393
19	3	57.5	0.07652	0.093	0.050	46.5	4958.756	9925.974	-100.2	1108.262
20	3	62.5	0.07991	0.095	0.050	47.5	5059.019	10319.356	-104.0	1119.411
21	3	67.5	0.08313	0.097	0.050	48.4	5153.742	10698.285	-107.6	1129.842
22	3	72.5	0.08621	0.098	0.050	49.2	5243.578	11064.243	-111.0	1139.646
23	3	77.5	0.08915	0.100	0.050	49.9	5329.083	11418.479	-114.3	1148.901
24	3	82.5	0.09197	0.101	0.050	50.6	5410.724	11762.051	-117.4	1257.668

VALUES IN TIME DOMAIN

LAYER	TYPE	THICKNESS FT	DEPTH FT	MAX STRAIN PRCNT	MAX STRESS PSF	TIME SEC
1	1	1.0	0.5	0.00309	96.78	23.31
2	1	2.0	2.0	0.01236	338.57	23.31
3	1	3.0	4.5	0.02781	657.39	23.31
4	1	2.0	7.0	0.04325	925.27	23.31
5	1	2.0	9.0	0.05559	1105.81	23.31
6	1	2.0	11.0	0.06792	1258.98	23.31
7	1	2.0	13.0	0.08024	1396.77	23.31
8	1	2.0	15.0	0.09254	1521.56	23.31
9	1	2.0	17.0	0.05683	2074.50	23.31
10	1	3.0	19.5	0.06546	2273.67	23.31
11	1	3.0	22.5	0.07580	2493.67	23.31
12	2	5.0	26.5	0.12027	2240.69	23.31
13	2	4.0	31.0	0.11706	2662.65	23.31
14	2	4.0	35.0	0.12538	2904.82	23.31
15	2	4.0	39.0	0.14043	3046.26	23.31
16	2	4.0	43.0	0.14812	3258.79	23.31
17	1	5.0	47.5	0.07152	5410.98	23.31
18	1	5.0	52.5	0.07898	5754.86	23.31
19	3	5.0	57.5	0.11772	5837.51	23.31

10	1	3.0	19.5	0.17249	3950.29	23.33
11	1	3.0	22.5	0.22624	4572.23	23.33
12	2	5.0	26.5	1.99966	5370.76	23.37
13	2	4.0	31.0	1.71818	6145.46	23.37
14	2	4.0	35.0	2.16040	6974.69	23.37
15	2	4.0	39.0	5.99913	7376.78	23.38
16	2	4.0	43.0	7.01057	8204.70	23.38
17	1	5.0	47.5	0.16578	8689.05	23.32
18	1	5.0	52.5	0.18424	9222.39	23.32
19	3	5.0	57.5	0.35757	9911.36	23.33
20	3	5.0	62.5	0.37913	10483.43	23.32
21	3	5.0	67.5	0.40102	11031.13	23.32
22	3	5.0	72.5	0.42117	11540.90	23.32
23	3	5.0	77.5	0.43864	12011.63	23.32
24	3	5.0	82.5	0.45264	12445.16	23.31

1

EARTHQUAKE - SECTION C-C, 08/2002
SOIL PROFILE - Transporter Route, HBPP, ISFSI, 08/

ITERATION NUMBER 22
THE CALCULATION HAS BEEN CARRIED OUT IN THE TIME DOMAIN WITH EFF. STRAIN = .65* MAX. STRAIN

LAYER	TYPE	DEPTH	EFF. STRAIN	NEW DAMP.	DAMP USED	ERROR	NEW G	G USED	ERROR	NEW Vs
1	1	0.5	0.00208	0.023	0.023	0.0	3126.043	3126.043	0.0	897.368
2	1	2.0	0.00976	0.045	0.045	0.0	2673.314	2673.314	0.0	829.847
3	1	4.5	0.02737	0.074	0.074	0.0	2153.043	2153.043	0.0	744.731
4	1	7.0	0.05318	0.096	0.096	0.0	1727.568	1727.568	0.0	667.099
5	1	9.0	0.08283	0.111	0.111	0.0	1427.598	1427.598	0.0	606.423
6	1	11.0	0.12049	0.124	0.124	0.0	1199.988	1199.989	0.0	555.983
7	1	13.0	0.16643	0.137	0.137	0.0	1026.633	1026.634	0.0	514.257
8	1	15.0	0.23284	0.151	0.151	0.0	846.435	846.450	0.0	466.949
9	1	17.0	0.08604	0.112	0.112	0.0	2591.835	2591.835	0.0	801.235
10	1	19.5	0.11212	0.122	0.122	0.0	2290.093	2290.093	0.0	753.152
11	1	22.5	0.14706	0.132	0.132	0.0	2020.935	2020.935	0.0	707.510
12	2	26.5	1.30340	0.254	0.254	0.0	268.062	268.584	-0.2	257.676
13	2	31.0	1.13681	0.251	0.251	0.2	353.668	357.671	-1.1	295.974
14	2	35.0	1.40599	0.256	0.256	0.0	322.548	322.842	-0.1	282.653
15	2	39.0	4.04313	0.276	0.276	0.2	120.413	122.964	-2.1	172.700
16	2	43.0	4.55879	0.278	0.278	0.0	117.002	117.033	0.0	170.237
17	1	47.5	0.10733	0.120	0.120	-0.1	5250.162	5241.394	0.2	1140.362
18	1	52.5	0.11905	0.124	0.124	-0.2	5018.894	5005.636	0.3	1114.962
19	3	57.5	0.22772	0.150	0.151	-0.8	2811.011	2771.832	1.4	834.425
20	3	62.5	0.24026	0.153	0.155	-0.9	2815.671	2765.098	1.8	835.117
21	3	67.5	0.25341	0.156	0.158	-1.0	2809.008	2750.789	2.1	834.128
22	3	72.5	0.26623	0.159	0.161	-1.0	2799.759	2740.185	2.1	832.754
23	3	77.5	0.27810	0.161	0.163	-0.9	2793.270	2738.358	2.0	831.788
24	3	82.5	0.28852	0.163	0.165	-0.7	2793.872	2749.456	1.6	831.878

VALUES IN TIME DOMAIN

LAYER	TYPE	THICKNESS FT	DEPTH FT	MAX STRAIN PRCNT	MAX STRESS PSF	TIME SEC
1	1	1.0	0.5	0.00320	99.99	23.31
2	1	2.0	2.0	0.01501	401.40	23.31
3	1	3.0	4.5	0.04212	906.76	23.32
4	1	2.0	7.0	0.08182	1413.52	23.32
5	1	2.0	9.0	0.12743	1819.18	23.33
6	1	2.0	11.0	0.18537	2224.45	23.33
7	1	2.0	13.0	0.25605	2628.68	23.33
8	1	2.0	15.0	0.35821	3032.01	23.34
9	1	2.0	17.0	0.13237	3430.85	23.33
10	1	3.0	19.5	0.17249	3950.29	23.33
11	1	3.0	22.5	0.22624	4572.23	23.33
12	2	5.0	26.5	2.00524	5375.28	23.37
13	2	4.0	31.0	1.74894	6185.45	23.37
14	2	4.0	35.0	2.16307	6976.94	23.37
15	2	4.0	39.0	6.22020	7489.95	23.38
16	2	4.0	43.0	7.01353	8205.98	23.38
17	1	5.0	47.5	0.16513	8669.47	23.32
18	1	5.0	52.5	0.18315	9192.07	23.32
19	3	5.0	57.5	0.35033	9847.95	23.33
20	3	5.0	62.5	0.36963	10407.47	23.32
21	3	5.0	67.5	0.38987	10951.37	23.32
22	3	5.0	72.5	0.40958	11467.34	23.32
23	3	5.0	77.5	0.42785	11950.92	23.31
24	3	5.0	82.5	0.44387	12401.14	23.31

1

EARTHQUAKE - SECTION C-C, 08/2002
SOIL PROFILE - Transporter Route, HBPP, ISFSI, 08/

ITERATION NUMBER 23
THE CALCULATION HAS BEEN CARRIED OUT IN THE TIME DOMAIN WITH EFF. STRAIN = .65* MAX. STRAIN

LAYER	TYPE	DEPTH	EFF. STRAIN	NEW DAMP.	DAMP USED	ERROR	NEW G	G USED	ERROR	NEW Vs
1	1	0.5	0.00208	0.023	0.023	0.0	3126.043	3126.043	0.0	897.368
2	1	2.0	0.00976	0.045	0.045	0.0	2673.314	2673.314	0.0	829.847

excerpt from TR1C.OUT

3	1	4.5	0.02737	0.074	0.074	0.0	2153.043	2153.043	0.0	744.731
4	1	7.0	0.05318	0.096	0.096	0.0	1727.568	1727.568	0.0	667.099
5	1	9.0	0.08293	0.111	0.111	0.0	1427.598	1427.598	0.0	606.423
6	1	11.0	0.12049	0.124	0.124	0.0	1199.988	1199.988	0.0	555.983
7	1	13.0	0.16643	0.137	0.137	0.0	1026.633	1026.633	0.0	514.257
8	1	15.0	0.23284	0.151	0.151	0.0	846.425	846.435	0.0	466.947
9	1	17.0	0.08604	0.112	0.112	0.0	2591.835	2591.835	0.0	801.235
10	1	19.5	0.11222	0.122	0.122	0.0	2290.093	2290.093	0.0	753.152
11	1	22.5	0.14706	0.132	0.132	0.0	2020.935	2020.935	0.0	707.520
12	2	26.5	1.30593	0.254	0.254	0.0	267.699	268.062	-0.1	257.502
13	2	31.0	1.14963	0.251	0.251	0.1	351.139	353.668	-0.7	294.914
14	2	35.0	1.40715	0.256	0.256	0.0	322.353	322.548	-0.1	282.568
15	2	39.0	4.12779	0.277	0.276	0.1	118.953	120.413	-1.2	171.650
16	2	43.0	4.55769	0.278	0.278	0.0	117.020	117.002	0.0	170.250
17	1	47.5	0.10706	0.120	0.120	-0.1	5255.938	5250.162	0.1	1140.989
18	1	52.5	0.11858	0.124	0.124	-0.1	5027.673	5018.894	0.2	1115.937
19	3	57.5	0.22416	0.149	0.150	-0.6	2841.146	2811.011	1.1	838.886
20	3	62.5	0.23549	0.152	0.153	-0.7	2855.625	2815.673	1.4	841.021
21	3	67.5	0.24762	0.155	0.156	-0.8	2856.763	2809.008	1.7	841.189
22	3	72.5	0.25997	0.158	0.159	-0.8	2850.578	2799.759	1.8	840.278
23	3	77.5	0.27200	0.160	0.161	-0.8	2842.131	2793.270	1.7	839.032
24	3	82.5	0.28325	0.162	0.163	-0.6	2835.653	2793.872	1.5	838.075

VALUES IN TIME DOMAIN

LAYER	TYPE	THICKNESS FT	DEPTH FT	MAX STRAIN PRCNT	MAX STRESS PSF	TIME SEC
1	1	1.0	0.5	0.00320	99.99	23.31
2	1	2.0	2.0	0.01501	401.40	23.31
3	1	3.0	4.5	0.04212	906.76	23.32
4	1	2.0	7.0	0.08182	1413.52	23.32
5	1	2.0	9.0	0.12743	1819.18	23.33
6	1	2.0	11.0	0.18537	2224.45	23.33
7	1	2.0	13.0	0.25605	2628.68	23.33
8	1	2.0	15.0	0.35822	3032.03	23.34
9	1	2.0	17.0	0.13237	3430.85	23.33
10	1	3.0	19.5	0.17249	3950.29	23.33
11	1	3.0	22.5	0.22624	4572.23	23.33
12	2	5.0	26.5	2.00912	5378.41	23.37
13	2	4.0	31.0	1.76865	6210.44	23.37
14	2	4.0	35.0	2.16484	6978.44	23.37
15	2	4.0	39.0	6.35044	7554.02	23.38
16	2	4.0	43.0	7.01183	8205.24	23.38
17	1	5.0	47.5	0.16470	8656.59	23.32
18	1	5.0	52.5	0.18243	9172.01	23.32
19	3	5.0	57.5	0.34487	9798.15	23.33
20	3	5.0	62.5	0.36228	10345.49	23.32
21	3	5.0	67.5	0.38095	10882.87	23.32
22	3	5.0	72.5	0.39995	11400.87	23.32
23	3	5.0	77.5	0.41846	11893.29	23.31
24	3	5.0	82.5	0.43577	12357.02	23.31

PERIOD = 0.50 FROM AVERAGE SHEARVEL. = 680.

MAXIMUM AMPLIFICATION = 2.35
FOR FREQUENCY = 1.16 C/SEC.
PERIOD = 0.86 SEC.

1****** OPTION 5 *** COMPUTE MOTION IN NEW SUBLAYERS

EARTHQUAKE - SECTION C-C, 08/2002
SOIL DEPOSIT - Transporter Route, HBPP, ISFSI, 08/

LAYER	DEPTH FT	MAX. ACC. G	SEC	TIME C/SEC	MEAN SQ. FR. QUIET ZONE	ACC. RATIO ACC. RECORD	PUNCHED CARDS
OUTCR.	0.0	1.59292		23.30	0.94	0.044	2048
WITHIN	1.0	1.59288		23.30	0.94	0.044	0
WITHIN	3.0	1.59250		23.30	0.94	0.044	0
WITHIN	6.0	1.59090		23.30	0.94	0.044	0
WITHIN	8.0	1.58885		23.30	0.94	0.044	0
WITHIN	10.0	1.58566		23.30	0.94	0.044	0
WITHIN	12.0	1.58105		23.30	0.93	0.043	0
WITHIN	14.0	1.57472		23.30	0.93	0.043	0
WITHIN	16.0	1.56593		23.30	0.92	0.043	0
WITHIN	18.0	1.56264		23.30	0.91	0.043	0
WITHIN	21.0	1.55624		23.30	0.91	0.043	0
WITHIN	24.0	1.54790		23.30	0.90	0.043	0

WITHIN	29.0	1.43443	23.30	0.80	0.041	0
WITHIN	33.0	1.35582	23.29	0.75	0.041	0
WITHIN	37.0	1.26403	23.28	0.72	0.043	0

1****** OPTION 5 *** COMPUTE MOTION IN NEW SUBLAYERS

EARTHQUAKE - SECTION C-C, 08/2002
SOIL DEPOSIT - Transporter Route, HBPP, ISFSI, 08/

LAYER	DEPTH FT	MAX. ACC. G	SEC	TIME C/SEC	MEAN SQ. FR. QUIET ZONE	ACC. RATIO ACC. RECORD	PUNCHED CARDS
WITHIN	41.0	1.07090		24.81	0.86	0.062	0
WITHIN	45.0	1.27278		24.80	1.21	0.065	0
WITHIN	50.0	1.27655		24.80	1.22	0.065	0
WITHIN	55.0	1.27919		24.79	1.22	0.065	0
WITHIN	60.0	1.28156		24.79	1.22	0.064	0
WITHIN	65.0	1.28124		24.79	1.22	0.064	0
WITHIN	70.0	1.27825		24.79	1.22	0.063	0
WITHIN	75.0	1.27297		24.78	1.20	0.063	0
WITHIN	80.0	1.26529		24.78	1.19	0.062	0
WITHIN	85.0	1.25500		24.78	1.17	0.062	0
OUTCR.	85.0	1.35293		23.06	1.27	0.063	2048

XMAX= 1.5929 SECTION C-C, 08/2002

ACCELERATION VALUES AT OUTCROPPING LAYER 1 - Transporter Route, HBPP, ISFSI, 08/								
0.014488	0.013698	0.012825	0.011873	0.010848	0.009758	0.008607	0.007405	1
0.006157	0.004873	0.003558	0.002223	0.000874	-0.000478	-0.001828	-0.003164	2
-0.004482	-0.005769	-0.007021	-0.008227	-0.009384	-0.010480	-0.011512	-0.012469	3
-0.013351	-0.014147	-0.014857	-0.015471	-0.015992	-0.016410	-0.016727	-0.016938	4
-0.017045	-0.017043	-0.016937	-0.016723	-0.016405	-0.015984	-0.015463	-0.014845	5
-0.014134	-0.013334	-0.012449	-0.011487	-0.010451	-0.009350	-0.008189	-0.006976	6
-0.005717	-0.004422	-0.003097	-0.001752	-0.000393	0.000968	0.002328	0.003673	7
0.004999	0.006294	0.007555	0.008769	0.009933	0.011036	0.012075	0.013039	8
0.013928	0.014730	0.015446	0.016067	0.016594	0.017018	0.017343	0.017561	9
0.017676	0.017682	0.017585	0.017381	0.017075	0.016665	0.016158	0.015555	10
0.014861	0.014079	0.013216	0.012276	0.011266	0.010192	0.009062	0.007883	11
0.006662	0.005408	0.004128	0.002832	0.001526	0.000222	-0.001076	-0.002354	12
-0.003608	-0.004826	-0.006004	-0.007130	-0.008200	-0.009203	-0.010135	-0.010987	13
-0.011757	-0.012434	-0.013018	-0.013500	-0.013880	-0.014153	-0.014317	-0.014369	14
-0.014310	-0.014136	-0.013851	-0.013453	-0.012945	-0.012327	-0.011605	-0.010780	15
-0.009858	-0.008841	-0.007737	-0.006551	-0.005288	-0.003957	-0.002563	-0.001116	16
0.000378	0.001910	0.003472	0.005054	0.006649	0.008246	0.009838	0.011414	17
0.012968	0.014488	0.015969	0.017398	0.018772	0.020079	0.021315	0.022470	18
0.023540	0.024518	0.025399	0.026177	0.026849	0.027410	0.027860	0.028192	19
0.028409	0.028507	0.028487	0.028349	0.028094	0.027724	0.027241	0.026650	20
0.025953	0.025155	0.024259	0.023275	0.022205	0.021058	0.019838	0.018557	21
0.017218	0.015834	0.014407	0.012953	0.011474	0.009985	0.008488	0.006999	22
0.005521	0.004067	0.002641	0.001258	-0.000081	-0.001362	-0.002585	-0.003734	23
-0.004811	-0.005802	-0.006709	-0.007521	-0.008238	-0.008852	-0.009365	-0.009768	24
-0.010066	-0.010251	-0.010330	-0.010296	-0.010156	-0.009907	-0.009555	-0.009098	25
-0.008546	-0.007897	-0.007161	-0.006339	-0.005440	-0.004468	-0.003431	-0.002336	26
-0.001192	-0.000004	0.001218	0.002466	0.003732	0.005006	0.006281	0.007547	27
0.008796	0.010020	0.011210	0.012357	0.013454	0.014493	0.015468	0.016371	28
0.017196	0.017936	0.018587	0.019144	0.019602	0.019958	0.020209	0.020352	29
0.020386	0.020310	0.020122	0.019825	0.019418	0.018905	0.018284	0.017564	30
0.016743	0.015830	0.014825	0.013739	0.012572	0.011337	0.010034	0.008677	31
0.007267	0.005818	0.004333	0.002826	0.001299	-0.000233	-0.001766	-0.003287	32
-0.004792	-0.006267	-0.007710	-0.009106	-0.010453	-0.011738	-0.012959	-0.014103	33
-0.015171	-0.016149	-0.017040	-0.017830	-0.018524	-0.019109	-0.019591	-0.019960	34
-0.020221	-0.020366	-0.020401	-0.020321	-0.020133	-0.019832	-0.019426	-0.018914	35
-0.018304	-0.017595	-0.016797	-0.015912	-0.014948	-0.013910	-0.012806	-0.011643	36
-0.010428	-0.009171	-0.007878	-0.006559	-0.005222	-0.003876	-0.002530	-0.001193	37
0.000127	0.001420	0.002680	0.003895	0.005060	0.006165	0.007205	0.008170	38
0.009057	0.009856	0.010566	0.011178	0.011690	0.012097	0.012397	0.012586	39
0.012664	0.012628	0.012479	0.012217	0.011843	0.011359	0.010767	0.010069	40
0.009270	0.008375	0.007387	0.006313	0.005157	0.003928	0.002631	0.001276	41
-0.000133	-0.001585	-0.003073	-0.004587	-0.006121	-0.007662	-0.009206	-0.010739	42
-0.012257	-0.013747	-0.015203	-0.016615	-0.017977	-0.019277	-0.020512	-0.021672	43
-0.022752	-0.023743	-0.024644	-0.025445	-0.026146	-0.026738	-0.027223	-0.027593	44
-0.027851	-0.027993	-0.028019	-0.027928	-0.027724	-0.027405	-0.026975	-0.026436	45
-0.025793	-0.025049	-0.024208	-0.023277	-0.022260	-0.021166	-0.019999	-0.018769	46
-0.017480	-0.016144	-0.014766	-0.013357	-0.011922	-0.010475	-0.009020	-0.007570	47
-0.006130	-0.004712	-0.003321	-0.001970	-0.000662	0.000590	0.001783	0.002905	48
0.003955	0.004922	0.005804	0.006592	0.007285	0.007876	0.008365	0.008745	49
0.009019	0.009180	0.009233	0.009173	0.009005	0.008727	0.008344	0.007855	50
0.007267	0.006581	0.005804	0.004939	0.003993	0.002972	0.001882	0.000731	51
-0.000475	-0.001728	-0.003019	-0.004341	-0.005685	-0.007043	-0.008406	-0.009766	52
-0.011114	-0.012442	-0.013742	-0.015004	-0.016223	-0.017390	-0.018498	-0.019540	53
-0.020511	-0.021404	-0.022214	-0.022936	-0.023566	-0.024100	-0.024537	-0.024872	54
-0.025105	-0.025234	-0.025260	-0.025182	-0.025002	-0.024722	-0.024344	-0.023871	55
-0.023306	-0.022655	-0.021920	-0.021110	-0.020228	-0.019283	-0.018279	-0.017226	56
-0.016129	-0.014999	-0.013840	-0.012666	-0.011479	-0.010293	-0.009112	-0.007950	57
-0.006810	-0.005706	-0.004640	-0.003626	-0.002667	-0.001774	-0.000951	-0.000208	58
0.000453	0.001021	0.001498	0.001872	0.002146	0.002310	0.002368	0.002312	59
0.002147	0.001866	0.001475	0.000970	0.000357	-0.000365	-0.001191	-0.002119	60
-0.003143	-0.004260	-0.005462	-0.006745	-0.008101	-0.009523	-0.011004	-0.012535	61
-0.014108	-0.015715	-0.017346	-0.018992	-0.020645	-0.022293	-0.023929	-0.025541	62
-0.027122	-0.028660	-0.030150	-0.031578	-0.032939	-0.034224	-0.035424	-0.036532	63
-0.037543	-0.038447	-0.039241	-0.039918	-0.040475	-0.040906	-0.041210	-0.041382	64
-0.041422	-0.041328	-0.041099	-0.040737	-0.040241	-0.039615	-0.038860	-0.037980	65
-0.036978	-0.035861	-0.034630	-0.033296	-0.031861	-0.030336	-0.028725	-0.027039	66
-0.025283	-0.023470	-0.021604	-0.019701	-0.017762	-0.015806	-0.013834	-0.011864	67
-0.009898	-0.007953	-0.006032	-0.004151	-0.002312	-0.000533	0.001188	0.002833	68
0.004404	0.005883	0.007273	0.008560	0.009746	0.010818	0.011780	0.012621	69

```
16384       0.5
    8
    7    1   10      100.
   11 100. #1 modulus for Clay PI 15 (Vucetic and Dobry 1991)
0.0001    0.000316  0.001     0.00316   0.01      0.0316    0.1       0.316
1.        3.16      10.
1.000     1.000     1.000     .94       .82       .64       .40       .21
.09       .04       .02
   11   1.  damping for Clay PI 15 (Vucetic & Dobry 1991)
0.0001    0.000316  0.001     0.00316   0.01      0.0316    0.1       0.316
1.        3.16      10.
1.7       1.7       1.7       2.6       4.5       7.8       11.7      16.3
20.2      23.0      23.0
   11 100. #2 modulus for Sand (20 to 50 ft) (EPRI 1993)
0.0001    0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.        3.        10.
1.000     0.999     0.991     0.953     0.830     0.620     0.364     0.181
0.071     0.025     0.010
   11   1.  damping for Sand (20 to 50 ft) (EPRI 1993)
0.0001    0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.        3.        10.
1.250     1.300     1.455     2.080     3.750     6.925     12.600    18.905
24.840    27.2      28.9
   11 100. #3 modulus for Sand (50 to 120 ft) (EPRI 1993)
0.0001    0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.        3.        10.
1.000     1.000     0.995     0.972     0.879     0.701     0.442     0.230
0.097     0.037     0.014
   11   1.  damping for Sand (50 to 120 ft) (EPRI 1993)
0.0001    0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.        3.        10.
1.090     1.145     1.300     1.665     2.865     5.415     10.465    16.560
22.915    25.5      27.0
   11 100. #4 modulus for Sand (120 to 250 ft) (EPRI 1993)
0.0001    0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.        3.        10.
1.000     1.000     0.996     0.980     0.910     0.756     0.510     0.283
0.122     0.050     0.019
   11   1.  damping for Sand (120 to 250 ft) (EPRI 1993)
0.0001    0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.        3.        10.
0.935     0.935     1.090     1.455     2.340     4.375     8.695     14.580
21.250    23.8      25.5
   11 100. #5 modulus for Sand (250 to 500 ft) (EPRI 1993)
0.0001    0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.        3.        10.
1.000     1.000     0.997     0.986     0.932     0.809     0.573     0.338
0.152     0.067     0.025
   11   1.  damping for Sand (250 to 500 ft) (EPRI 1993)
0.0001    0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.        3.        10.
0.800     0.800     0.900     1.145     1.875     3.490     7.185     12.705
19.270    22.4      24.0
   11 100. #6 modulus for Sand (> 500 ft) (EPRI 1993)
0.0001    0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.        3.        10.
1.000     1.000     0.998     0.991     0.955     0.860     0.658     0.417
0.207     0.083     0.032
   11   1.  damping for Sand (> 500 ft) (EPRI 1993)
0.0001    0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.        3.        10.
0.570     0.625     0.625     0.850     1.280     2.500     5.520     10.260
16.770    20.2      22.5
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   11 100. #7 modulus for Weathered Rock
0.0001     0.0003     0.001      0.003      0.01       0.03       0.1        0.3
1.         3.         10.
1.000      1.000      1.000      0.990      0.960      0.900      0.75       0.55
0.34       0.2        0.12
   11   1.  damping for Weathered Rock
0.0001     0.0003     0.001      0.003      0.01       0.03       0.1        0.3
1.         3.         10.
0.24       0.42       0.8        1.4        2.8        5.1        9.8        15.5
21.        25.        28.
    2
    1   25    4 Transporter Route, HBPP, ISFSI, 08/2002
    1    1    1       1.0              0.023       .125    897.368            1.
    2    1    1       2.0              0.045       .125    829.847            1.
    3    1    1       3.0              0.074       .125    744.731            1.
    4    1    1       2.0              0.096       .125    667.099            1.
    5    1    1       2.0              0.111       .125    606.423            1.
    6    1    1       2.0              0.124       .125    555.983            1.
    7    1    1       2.0              0.137       .125    514.257            1.
    8    1    1       2.0              0.151       .125    466.947            1.
    9    1    1       2.0              0.112       .130    801.235            1.
   10    1    1       3.0              0.122       .130    753.152            1.
   11    1    1       3.0              0.132       .130    707.510            1.
   12    2    1       5.0              0.254       .130    257.502            1.
   13    2    1       4.0              0.251       .130    294.914            1.
   14    2    1       4.0              0.256       .130    282.568            1.
   15    2    1       4.0              0.277       .130    171.650            1.
   16    2    1       4.0              0.278       .130    170.250            1.
   17    1    1       5.0              0.120       .130   1140.989            1.
   18    1    1       5.0              0.124       .130   1115.937            1.
   19    3    1       5.0              0.149       .130    838.886            1.
   20    3    1       5.0              0.152       .130    841.021            1.
   21    3    1       5.0              0.155       .130    841.189            1.
   22    3    1       5.0              0.158       .130    840.278            1.
   23    3    1       5.0              0.160       .130    839.032            1.
   24    3    1       5.0              0.162       .130    838.075            1.
   25                                    .05       .130     1800.             1.
    1
1599916384       .005    2(8E15.7) SET 1, SECTION C-C, 08/2002
       1.                    6.
S1CC.AC8
    3
    1    0
    5
    1    2    3    4    5    6    7    8    9   10   11   12   13   14   15
    0    1    1    1    1    1    1    1    1    1    1    1    1    1    1
    1    0    0    0    0    0    0    0    0    0    0    0    0    0    0
    5
   16   17   18   19   20   21   22   23   24   25   25
    1    1    1    1    1    1    1    1    1    1    0
    0    0    0    0    0    0    0    0    0    0    1
    0
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**                                          **
** SHAKE -- A COMPUTER PROGRAM FOR          **
**          EARTHQUAKE RESPONSE ANALYSIS    **
**          OF HORIZONTALLY LAYERED SITES   **
**                                          **
**                                          **
** MS-DOS VERSION - CONVERTED TO IBM-PC BY  **
**                  Shyh-Shiun Lai, WCC     **
**                  January 1985            **
**                                          **
** (Modified to Use 16384 Points and 100    **
**  Soil Layers, S.J. Chiou, August 1995)   **
**                                          **
**********************************************
**********************************************
Output file name : TR1CI.OUT
Start time : 19``/``/`` --
Start time : 19``/``/`` --

 MAX. NUMBER OF TERMS IN FOURIER TRANSFORM =     16384
 NECESSARY LENGTH OF BLANK COMMON X        =    102419
 EARTH PRESSURE AT REST FOR SAND           =     0.500
1******   OPTION  8  *** READ RELATION BETWEEN SOIL PROPERTIES AND STRAIN

   CURVES FOR RELATION STRAIN VERSUS SHEAR MODULUS AND DAMPING
```

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
1	0.000100	1.000	0.000100	1.7
1	0.000316	1.000	0.000316	1.7
1	0.001000	1.000	0.001000	1.7
1	0.003160	0.940	0.003160	2.6
1	0.010000	0.820	0.010000	4.5
1	0.031600	0.640	0.031600	7.8
1	0.100000	0.400	0.100000	11.7
1	0.316000	0.210	0.316000	16.3
1	1.000000	0.090	1.000000	20.2
1	3.160000	0.040	3.160000	23.0
1	10.000000	0.020	10.000000	23.0

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
2	0.000100	1.000	0.000100	1.3
2	0.000300	0.999	0.000300	1.3
2	0.001000	0.991	0.001000	1.5
2	0.003000	0.953	0.003000	2.1
2	0.010000	0.830	0.010000	3.8
2	0.030000	0.620	0.030000	6.9
2	0.100000	0.364	0.100000	12.6
2	0.300000	0.181	0.300000	18.9
2	1.000000	0.071	1.000000	24.8
2	3.000000	0.025	3.000000	27.2
2	10.000000	0.010	10.000000	28.9

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
3	0.000100	1.000	0.000100	1.1
3	0.000300	1.000	0.000300	1.1
3	0.001000	0.995	0.001000	1.3
3	0.003000	0.972	0.003000	1.7
3	0.010000	0.879	0.010000	2.9
3	0.030000	0.701	0.030000	5.4
3	0.100000	0.442	0.100000	10.5
3	0.300000	0.230	0.300000	16.6
3	1.000000	0.097	1.000000	22.9
3	3.000000	0.037	3.000000	25.5
3	10.000000	0.014	10.000000	27.0

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
4	0.000100	1.000	0.000100	0.9
4	0.000300	1.000	0.000300	0.9
4	0.001000	0.996	0.001000	1.1
4	0.003000	0.980	0.003000	1.5
4	0.010000	0.910	0.010000	2.3
4	0.030000	0.756	0.030000	4.4
4	0.100000	0.510	0.100000	8.7
4	0.300000	0.283	0.300000	14.6
4	1.000000	0.122	1.000000	21.3
4	3.000000	0.050	3.000000	23.8
4	10.000000	0.019	10.000000	25.5

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
5	0.000100	1.000	0.000100	0.8
5	0.000300	1.000	0.000300	0.8
5	0.001000	0.997	0.001000	0.9
5	0.003000	0.986	0.003000	1.1
5	0.010000	0.932	0.010000	1.9
5	0.030000	0.809	0.030000	3.5
5	0.100000	0.573	0.100000	7.2
5	0.300000	0.338	0.300000	12.7
5	1.000000	0.152	1.000000	19.3
5	3.000000	0.067	3.000000	22.4
5	10.000000	0.025	10.000000	24.0

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
6	0.000100	1.000	0.000100	0.6
6	0.000300	1.000	0.000300	0.6
6	0.001000	0.998	0.001000	0.6
6	0.003000	0.991	0.003000	0.9
6	0.010000	0.955	0.010000	1.3
6	0.030000	0.860	0.030000	2.5
6	0.100000	0.658	0.100000	5.5
6	0.300000	0.417	0.300000	10.3
6	1.000000	0.207	1.000000	16.8
6	3.000000	0.083	3.000000	20.2
6	10.000000	0.032	10.000000	22.5

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
7	0.000100	1.000	0.000100	0.2
7	0.000300	1.000	0.000300	0.4
7	0.001000	1.000	0.001000	0.8
7	0.003000	0.990	0.003000	1.4
7	0.010000	0.960	0.010000	2.8
7	0.030000	0.900	0.030000	5.1
7	0.100000	0.750	0.100000	9.8
7	0.300000	0.550	0.300000	15.5
7	1.000000	0.340	1.000000	21.0
7	3.000000	0.200	3.000000	25.0
7	10.000000	0.120	10.000000	28.0

1****** OPTION 2 *** READ SOIL PROFILE

NEW SOIL PROFILE NO. 1 IDENTIFICATION Transporter Route, HBPP, ISFSI, 08/

0NUMBER OF LAYERS 25 DEPTH TO BEDROCK 85.00
NUMBER OF FIRST SUBMERGED LAYER 4 DEPTH TO WATER LEVEL 6.00

LAYER	TYPE	MAX-MOD	THICKNESS	DEPTH	EFF. PRESS.	MODULUS	DAMPING	UNIT WEIGTH	SHEAR VEL	SVMAX
1	1	3126.045	1.00	0.50	0.063	3126.045	0.0230	0.1250	897.368	897.368
2	1	2673.315	2.00	2.00	0.250	2673.315	0.0450	0.1250	829.847	829.847
3	1	2153.044	3.00	4.50	0.563	2153.044	0.0740	0.1250	744.731	744.731
4	1	1727.566	2.00	7.00	0.813	1727.566	0.0960	0.1250	667.099	667.099
5	1	1427.596	2.00	9.00	0.938	1427.596	0.1110	0.1250	606.423	606.423
6	1	1199.989	2.00	11.00	1.063	1199.989	0.1240	0.1250	555.983	555.983
7	1	1026.631	2.00	13.00	1.188	1026.631	0.1370	0.1250	514.257	514.257
8	1	846.427	2.00	15.00	1.313	846.427	0.1510	0.1250	466.947	466.947
9	1	2591.834	2.00	17.00	1.444	2591.834	0.1120	0.1300	801.235	801.235
10	1	2290.091	3.00	19.50	1.613	2290.091	0.1220	0.1300	753.152	753.152
11	1	2020.936	3.00	22.50	1.815	2020.936	0.1320	0.1300	707.510	707.510
12	2	267.700	5.00	26.50	2.086	267.700	0.2540	0.1300	257.502	257.502
13	2	351.138	4.00	31.00	2.390	351.138	0.2510	0.1300	294.914	294.914
14	2	322.354	4.00	35.00	2.660	322.354	0.2560	0.1300	282.568	282.568
15	2	118.953	4.00	39.00	2.931	118.953	0.2770	0.1300	171.650	171.650
16	2	117.020	4.00	43.00	3.201	117.020	0.2780	0.1300	170.250	170.250
17	1	5255.940	5.00	47.50	3.505	5255.940	0.1200	0.1300	1140.989	1140.989
18	1	5027.670	5.00	52.50	3.843	5027.670	0.1240	0.1300	1115.937	1115.937
19	3	2841.145	5.00	57.50	4.181	2841.145	0.1490	0.1300	838.886	838.886
20	3	2855.625	5.00	62.50	4.519	2855.625	0.1520	0.1300	841.021	841.021
21	3	2856.766	5.00	67.50	4.857	2856.766	0.1550	0.1300	841.189	841.189
22	3	2850.582	5.00	72.50	5.195	2850.582	0.1580	0.1300	840.278	840.278
23	3	2842.134	5.00	77.50	5.533	2842.134	0.1600	0.1300	839.032	839.032
24	3	2835.654	5.00	82.50	5.871	2835.654	0.1620	0.1300	838.075	838.075
25	BASE					13081.	0.050	0.1300	1800.	

PERIOD = 0.50 FROM AVERAGE SHEARVEL. = 680.

MAXIMUM AMPLIFICATION = 2.34
FOR FREQUENCY = 1.16 C/SEC.
PERIOD = 0.86 SEC.

1****** OPTION 1 *** READ INPUT MOTION

EARTHQUAKE - SECTION C-C, 08/2002

15999 ACCELERATION VALUES AT TIME INTERVAL 0.0050

THE VALUES ARE LISTED ROW BY ROW AS READ FROM CARDS
TRAILING ZEROS ARE ADDED TO GIVE A TOTAL OF16384 VALUES

MAXIMUM ACCELERATION = 1.66833
AT TIME = 23.25 SEC

THE VALUES WILL BE MULTIPLIED BY A FACTOR = 1.000
TO GIVE NEW MAXIMUM ACCELERATION = 1.66833

MEAN SQUARE FREQUENCY = 1.49 C/SEC.

MAX ACCELERATION = 1.68741 FOR FREQUENCIES REMOVED ABOVE 6.00 C/SEC.

1****** OPTION 3 *** READ WHERE OBJECT MOTION IS GIVEN

OBJECT MOTION IN LAYER NUMBER 1 OUTCROPPING

1****** OPTION 5 *** COMPUTE MOTION IN NEW SUBLAYERS

EARTHQUAKE - SECTION C-C, 08/2002
SOIL DEPOSIT - Transporter Route, HBPP, ISFSI, 08/

LAYER	DEPTH, FT	MAX. ACC. G	SEC	TIME C/SEC	MEAN SQ. FR. QUIET ZONE	ACC. RATIO ACC. RECORD	PUNCHED CARDS
OUTCR.	0.0	1.68741		23.23	1.49	0.044	2048
WITHIN	1.0	1.68724		23.23	1.49	0.044	0
WITHIN	3.0	1.68562		23.23	1.48	0.044	0
WITHIN	6.0	1.67880		23.23	1.47	0.043	0
WITHIN	8.0	1.67000		23.23	1.45	0.043	0
WITHIN	10.0	1.65646		23.23	1.42	0.043	0
WITHIN	12.0	1.63757		23.23	1.38	0.042	0
WITHIN	14.0	1.61185		23.23	1.32	0.041	0
WITHIN	16.0	1.57660		23.23	1.25	0.040	0
WITHIN	18.0	1.56412		23.23	1.23	0.040	0
WITHIN	21.0	1.54101		23.23	1.18	0.039	0
WITHIN	24.0	1.51312		23.23	1.13	0.038	0
WITHIN	29.0	1.60606		23.32	1.32	0.033	0
WITHIN	33.0	1.69507		23.32	1.92	0.031	0
WITHIN	37.0	1.73299		23.32	2.43	0.034	0

1****** OPTION 5 *** COMPUTE MOTION IN NEW SUBLAYERS

EARTHQUAKE - SECTION C-C, 08/2002
SOIL DEPOSIT - Transporter Route, HBPP, ISFSI, 08/

LAYER	DEPTH FT	MAX. ACC. G	SEC	TIME C/SEC	MEAN SQ. FR. QUIET ZONE	ACC. RATIO ACC. RECORD	PUNCHED CARDS
WITHIN	41.0	1.71407		24.73	3.07	0.059	0
WITHIN	45.0	2.07663		24.72	3.23	0.071	0
WITHIN	50.0	2.07655		24.72	3.21	0.071	0
WITHIN	55.0	2.06499		24.72	3.18	0.071	0
WITHIN	60.0	2.02559		24.72	3.08	0.071	0
WITHIN	65.0	1.96794		24.72	2.94	0.071	0
WITHIN	70.0	1.89348		24.72	2.77	0.071	0
WITHIN	75.0	1.82792		23.06	2.59	0.071	0
WITHIN	80.0	1.78352		23.05	2.43	0.069	0
WITHIN	85.0	1.75479		23.03	2.33	0.068	0
OUTCR.	85.0	2.23585		23.03	3.08	0.069	2048

XMAX= 1.6874 SECTION C-C, 08/2002
ACCELERATION VALUES AT OUTCROPPING LAYER 1 - Transporter Route, HBPP, ISFSI, 08/

0.000621	0.001445	0.002224	0.002928	0.003534	0.004020	0.004369	0.004569	1
0.004613	0.004499	0.004231	0.003820	0.003279	0.002629	0.001892	0.001094	2
0.000265	-0.000566	-0.001371	-0.002119	-0.002784	-0.003343	-0.003775	-0.004065	3
-0.004202	-0.004182	-0.004004	-0.003676	-0.003208	-0.002617	-0.001924	-0.001153	4
-0.000332	0.000510	0.001343	0.002138	0.002866	0.003501	0.004022	0.004409	5
0.004648	0.004731	0.004655	0.004422	0.004042	0.003526	0.002894	0.002168	6
0.001374	0.000539	-0.000305	-0.001129	-0.001904	-0.002602	-0.003198	-0.003670	7
-0.004001	-0.004181	-0.004200	-0.004060	-0.003763	-0.003322	-0.002751	-0.002070	8
-0.001302	-0.000477	0.000380	0.001235	0.002060	0.002826	0.003505	0.004073	9
0.004512	0.004804	0.004941	0.004917	0.004734	0.004399	0.003924	0.003327	10
0.002629	0.001855	0.001035	0.000198	-0.000625	-0.001404	-0.002109	-0.002716	11
-0.003200	-0.003543	-0.003731	-0.003756	-0.003615	-0.003310	-0.002851	-0.002253	12
-0.001532	-0.000714	0.000177	0.001110	0.002056	0.002984	0.003864	0.004669	13
0.005373	0.005956	0.006400	0.006695	0.006833	0.006815	0.006647	0.006339	14
0.005908	0.005376	0.004766	0.004108	0.003431	0.002766	0.002143	0.001593	15
0.001143	0.000815	0.000631	0.000605	0.000746	0.001058	0.001538	0.002179	16
0.002965	0.003879	0.004896	0.005989	0.007128	0.008282	0.009417	0.010502	17
0.011506	0.012402	0.013165	0.013777	0.014222	0.014492	0.014582	0.014498	18
0.014247	0.013844	0.013309	0.012665	0.011940	0.011163	0.010365	0.009580	19
0.008835	0.008162	0.007585	0.007128	0.006806	0.006632	0.006613	0.006751	20
0.007037	0.007464	0.008012	0.008663	0.009390	0.010168	0.010963	0.011747	21
0.012487	0.013156	0.013724	0.014171	0.014473	0.014620	0.014598	0.014409	22
0.014051	0.013535	0.012874	0.012089	0.011201	0.010239	0.009232	0.008214	23
0.007213	0.006263	0.005391	0.004628	0.003992	0.003505	0.003176	0.003017	24
0.003026	0.003199	0.003526	0.003991	0.004571	0.005243	0.005977	0.006744	25
0.007509	0.008243	0.008913	0.009492	0.009952	0.010276	0.010442	0.010445	26
0.010275	0.009937	0.009434	0.008784	0.008001	0.007112	0.006139	0.005118	27
0.004075	0.003047	0.002063	0.001156	0.000352	-0.000323	-0.000852	-0.001217	28
-0.001413	-0.001433	-0.001285	-0.000975	-0.000521	0.000059	0.000737	0.001488	29
0.002278	0.003077	0.003849	0.004566	0.005193	0.005709	0.006086	0.006310	30
0.006364	0.006247	0.005954	0.005495	0.004878	0.004125	0.003254	0.002296	31
0.001276	0.000232	-0.000808	-0.001807	-0.002737	-0.003565	-0.004269	-0.004824	32
-0.005218	-0.005436	-0.005478	-0.005344	-0.005043	-0.004589	-0.004003	-0.003306	33
-0.002532	-0.001706	-0.000867	-0.000044	0.000727	0.001418	0.001997	0.002444	34
0.002734	0.002858	0.002804	0.002574	0.002167	0.001600	0.000884	0.000045	35
-0.000894	-0.001901	-0.002947	-0.003994	-0.005014	-0.005969	-0.006834	-0.007577	36
-0.008180	-0.008622	-0.008894	-0.008988	-0.008905	-0.008652	-0.008243	-0.007694	37
-0.007030	-0.006278	-0.005469	-0.004633	-0.003806	-0.003019	-0.002303	-0.001687	38
-0.001195	-0.000847	-0.000658	-0.000637	-0.000786	-0.001100	-0.001572	-0.002185	39
-0.002918	-0.003746	-0.004642	-0.005573	-0.006509	-0.007416	-0.008263	-0.009023	40
-0.009670	-0.010182	-0.010543	-0.010745	-0.010782	-0.010657	-0.010377	-0.009959	41
-0.009420	-0.008787	-0.008086	-0.007348	-0.006607	-0.005894	-0.005242	-0.004681	42
-0.004237	-0.003931	-0.003782	-0.003800	-0.003991	-0.004352	-0.004875	-0.005546	43
-0.006343	-0.007242	-0.008211	-0.009218	-0.010227	-0.011203	-0.012109	-0.012913	44
-0.013584	-0.014096	-0.014430	-0.014570	-0.014509	-0.014248	-0.013793	-0.013161	45
-0.012370	-0.011450	-0.010433	-0.009357	-0.008261	-0.007188	-0.006178	-0.005272	46
-0.004508	-0.003918	-0.003530	-0.003366	-0.003438	-0.003752	-0.004306	-0.005088	47
-0.006079	-0.007250	-0.008569	-0.009995	-0.011483	-0.012986	-0.014455	-0.015840	48
-0.017093	-0.018172	-0.019035	-0.019651	-0.019993	-0.020046	-0.019798	-0.019254	49
-0.018421	-0.017322	-0.015983	-0.014442	-0.012740	-0.010927	-0.009053	-0.007174	50
-0.005342	-0.003611	-0.002031	-0.000646	0.000505	0.001390	0.001989	0.002287	51
0.002281	0.001976	0.001390	0.000546	-0.000521	-0.001772	-0.003160	-0.004637	52
-0.006148	-0.007643	-0.009066	-0.010371	-0.011512	-0.012450	-0.013154	-0.013602	53
-0.013778	-0.013679	-0.013309	-0.012684	-0.011826	-0.010769	-0.009548	-0.008212	54
-0.006804	-0.005380	-0.003987	-0.002680	-0.001503	-0.000504	0.000283	0.000825	55
0.001100	0.001092	0.000797	0.000218	-0.000631	-0.001730	-0.003049	-0.004554	56
-0.006202	-0.007951	-0.009752	-0.011559	-0.013324	-0.015005	-0.016559	-0.017953	57
-0.019159	-0.020154	-0.020925	-0.021468	-0.021783	-0.021882	-0.021780	-0.021504	58
-0.021080	-0.020542	-0.019925	-0.019266	-0.018599	-0.017962	-0.017384	-0.016892	59
-0.016508	-0.016248	-0.016120	-0.016126	-0.016261	-0.016515	-0.016867	-0.017297	60
-0.017776	-0.018276	-0.018763	-0.019208	-0.019578	-0.019847	-0.019991	-0.019994	61
-0.019841	-0.019529	-0.019061	-0.018448	-0.017706	-0.016864	-0.015951	-0.015006	62
-0.014069	-0.013187	-0.012403	-0.011763	-0.011308	-0.011079	-0.011106	-0.011415	63
-0.012023	-0.012937	-0.014153	-0.015659	-0.017430	-0.019432	-0.021619	-0.023940	64
-0.026335	-0.028739	-0.031082	-0.033297	-0.035312	-0.037063	-0.038487	-0.039533	65
-0.040153	-0.040317	-0.039998	-0.039192	-0.037898	-0.036139	-0.033942	-0.031355	66
-0.028429	-0.025233	-0.021835	-0.018321	-0.014767	-0.011264	-0.007887	-0.004722	67
-0.001836	0.000701	0.002840	0.004534	0.005759	0.006494	0.006744	0.006517	68
0.005845	0.004764	0.003329	0.001600	-0.000353	-0.002456	-0.004629	-0.006797	69

```
16384        0.5
    8
    7    1   10      100.
   11 100. #1 modulus for Clay PI 15 (Vucetic and Dobry 1991)
0.0001     0.000316  0.001     0.00316   0.01      0.0316    0.1       0.316
1.         3.16      10.
1.000      1.000     1.000     .94       .82       .64       .40       .21
.09        .04       .02
   11    1.  damping for Clay PI 15 (Vucetic & Dobry 1991)
0.0001     0.000316  0.001     0.00316   0.01      0.0316    0.1       0.316
1.         3.16      10.
1.7        1.7       1.7       2.6       4.5       7.8       11.7      16.3
20.2       23.0      23.0
   11 100. #2 modulus for Sand (20 to 50 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.000      0.999     0.991     0.953     0.830     0.620     0.364     0.181
0.071      0.025     0.010
   11    1.  damping for Sand (20 to 50 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.250      1.300     1.455     2.080     3.750     6.925     12.600    18.905
24.840     27.2      28.9
   11 100. #3 modulus for Sand (50 to 120 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.000      1.000     0.995     0.972     0.879     0.701     0.442     0.230
0.097      0.037     0.014
   11    1.  damping for Sand (50 to 120 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.090      1.145     1.300     1.665     2.865     5.415     10.465    16.560
22.915     25.5      27.0
   11 100. #4 modulus for Sand (120 to 250 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.000      1.000     0.996     0.980     0.910     0.756     0.510     0.283
0.122      0.050     0.019
   11    1.  damping for Sand (120 to 250 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
0.935      0.935     1.090     1.455     2.340     4.375     8.695     14.580
21.250     23.8      25.5
   11 100. #5 modulus for Sand (250 to 500 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.000      1.000     0.997     0.986     0.932     0.809     0.573     0.338
0.152      0.067     0.025
   11    1.  damping for Sand (250 to 500 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
0.800      0.800     0.900     1.145     1.875     3.490     7.185     12.705
19.270     22.4      24.0
   11 100. #6 modulus for Sand (> 500 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.000      1.000     0.998     0.991     0.955     0.860     0.658     0.417
0.207      0.083     0.032
   11    1.  damping for Sand (> 500 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
0.570      0.625     0.625     0.850     1.280     2.500     5.520     10.260
16.770     20.2      22.5
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   11 100. #7 modulus for Weathered Rock
0.0001     0.0003     0.001      0.003      0.01       0.03       0.1        0.3
1.         3.         10.
1.000      1.000      1.000      0.990      0.960      0.900      0.75       0.55
0.34       0.2        0.12
   11   1.  damping for Weathered Rock
0.0001     0.0003     0.001      0.003      0.01       0.03       0.1        0.3
1.         3.         10.
0.24       0.42       0.8        1.4        2.8        5.1        9.8        15.5
21.        25.        28.
    2
    1   25    4 Transporter Route, HBPP, ISFSI, 08/2002
    1    1    1        1.0                  .05        .125       915.              1.
    2    1    1        2.0                  .05        .125       915.              1.
    3    1    1        3.0                  .05        .125       915.              1.
    4    1    1        2.0                  .05        .125       915.              1.
    5    1    1        2.0                  .05        .125       915.              1.
    6    1    1        2.0                  .05        .125       915.              1.
    7    1    1        2.0                  .05        .125       915.              1.
    8    1    1        2.0                  .05        .125       915.              1.
    9    1    1        2.0                  .05        .130      1220.              1.
   10    1    1        3.0                  .05        .130      1220.              1.
   11    1    1        3.0                  .05        .130      1220.              1.
   12    2    1        5.0                  .05        .130         1.       120.    1.
   13    2    1        4.0                  .05        .130         1.       135.    1.
   14    2    1        4.0                  .05        .130         1.       135.    1.
   15    2    1        4.0                  .05        .130         1.       128.    1.
   16    2    1        4.0                  .05        .130         1.       128.    1.
   17    1    1        5.0                  .05        .130      1830.              1.
   18    1    1        5.0                  .05        .130      1830.              1.
   19    3    1        5.0                  .05        .130         1.       188.    1.
   20    3    1        5.0                  .05        .130         1.       188.    1.
   21    3    1        5.0                  .05        .130         1.       188.    1.
   22    3    1        5.0                  .05        .130         1.       188.    1.
   23    3    1        5.0                  .05        .130         1.       188.    1.
   24    3    1        5.0                  .05        .130         1.       188.    1.
   25                                       .05        .130      1800.              1.
    1
1599916384       .005    2(8E15.7) SET 3, SECTION C-C, 08/2002
       1.                   2.5
S3CC.AC8
    3
    1    0
    4
    0   30         2.       0.65
    5
    1    2    3    4    5    6    7    8    9   10   11   12   13   14   15
    0    1    1    1    1    1    1    1    1    1    1    1    1    1    1
    1    0    0    0    0    0    0    0    0    0    0    0    0    0    0
    5
   16   17   18   19   20   21   22   23   24   25   25
    1    1    1    1    1    1    1    1    1    1    0
    0    0    0    0    0    0    0    0    0    0    1
    0
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Set):
    15999     .00500
-.327900E-03  -.323720E-03  -.327444E-03  -.323427E-03  -.327283E-03  -.323334E-03  -.327358E-03  -.323638E-03
-.327704E-03  -.324066E-03  -.328352E-03  -.324811E-03  -.329279E-03  -.325909E-03  -.330464E-03  -.327251E-03
-.331937E-03  -.328796E-03  -.333723E-03  -.330695E-03  -.335732E-03  -.332815E-03  -.337978E-03  -.335162E-03
-.340558E-03  -.337812E-03  -.343438E-03  -.340705E-03  -.346480E-03  -.343877E-03  -.349811E-03  -.347228E-03
-.353378E-03  -.350882E-03  -.357160E-03  -.354699E-03  -.361225E-03  -.358792E-03  -.365451E-03  -.363155E-03
-.369953E-03  -.367707E-03  -.374900E-03  -.372621E-03  -.379847E-03  -.377698E-03  -.385187E-03  -.383080E-03
-.390852E-03  -.388901E-03  -.396912E-03  -.395027E-03  -.403379E-03  -.401706E-03  -.410416E-03  -.408731E-03
-.417957E-03  -.416585E-03  -.426221E-03  -.425051E-03  -.435198E-03  -.434390E-03  -.445130E-03  -.444501E-03
-.455879E-03  -.455681E-03  -.467758E-03  -.468003E-03  -.480898E-03  -.481749E-03  -.495454E-03  -.496870E-03
-.511618E-03  -.513847E-03  -.529710E-03  -.532824E-03  -.549840E-03  -.553964E-03  -.572338E-03  -.577286E-03
-.596938E-03  -.602970E-03  -.623929E-03  -.630976E-03  -.653238E-03  -.661185E-03  -.684619E-03  -.693338E-03
-.717657E-03  -.726958E-03  -.752133E-03  -.761897E-03  -.788287E-03  -.799099E-03  -.826727E-03  -.838510E-03
-.867480E-03  -.880156E-03  -.910419E-03  -.923919E-03  -.955306E-03  -.970201E-03  -.100447E-02  -.102301E-02
-.106177E-02  -.108506E-02  -.112945E-02  -.115874E-02  -.121042E-02  -.124749E-02  -.130816E-02  -.135489E-02
-.142494E-02  -.147844E-02  -.155384E-02  -.161221E-02  -.169234E-02  -.175456E-02  -.183783E-02  -.190199E-02
-.198620E-02  -.204976E-02  -.213180E-02  -.219047E-02  -.226520E-02  -.231331E-02  -.237708E-02  -.241544E-02
-.246874E-02  -.249484E-02  -.253379E-02  -.254266E-02  -.256172E-02  -.254854E-02  -.254345E-02  -.250408E-02
-.247125E-02  -.240318E-02  -.234185E-02  -.224539E-02  -.215639E-02  -.203505E-02  -.192434E-02  -.178336E-02
-.165591E-02  -.150309E-02  -.136946E-02  -.121603E-02  -.108765E-02  -.944495E-03  -.832254E-03  -.712301E-03
-.626453E-03  -.534555E-03  -.479361E-03  -.420771E-03  -.402240E-03  -.378801E-03  -.339712E-03  -.395047E-03
-.431550E-03  -.448769E-03  -.487426E-03  -.501421E-03  -.527684E-03  -.531862E-03  -.559149E-03  -.560819E-03
-.578343E-03  -.569934E-03  -.577596E-03  -.567830E-03  -.581433E-03  -.565029E-03  -.565014E-03  -.546933E-03
-.544317E-03  -.514330E-03  -.506700E-03  -.474546E-03  -.454079E-03  -.412694E-03  -.395039E-03  -.352539E-03
-.330243E-03  -.288165E-03  -.266576E-03  -.225748E-03  -.211264E-03  -.175877E-03  -.160602E-03  -.127912E-03
-.119912E-03  -.936809E-04  -.914179E-04  -.720324E-04  -.770482E-04  -.635330E-04  -.752978E-04  -.710523E-04
-.910197E-04  -.921860E-04  -.118279E-03  -.128901E-03  -.160792E-03  -.163778E-03  -.184418E-03  -.191963E-03
-.223460E-03  -.230055E-03  -.262801E-03  -.276555E-03  -.303880E-03  -.325789E-03  -.395662E-03  -.439168E-03
-.493668E-03  -.537424E-03  -.600339E-03  -.633958E-03  -.699621E-03  -.745374E-03  -.789328E-03  -.806487E-03
-.859960E-03  -.891181E-03  -.935383E-03  -.966637E-03  -.101801E-02  -.103964E-02  -.110092E-02  -.116074E-02
-.123084E-02  -.127141E-02  -.134255E-02  -.139641E-02  -.146922E-02  -.152093E-02  -.159440E-02  -.164753E-02
-.171643E-02  -.175930E-02  -.182963E-02  -.187961E-02  -.193308E-02  -.195523E-02  -.200549E-02  -.203616E-02
-.208095E-02  -.210007E-02  -.213904E-02  -.216799E-02  -.222333E-02  -.224784E-02  -.229158E-02  -.231026E-02
-.233408E-02  -.233711E-02  -.236412E-02  -.236388E-02  -.238238E-02  -.236307E-02  -.234914E-02  -.232733E-02
-.231777E-02  -.227019E-02  -.228658E-02  -.231001E-02  -.231856E-02  -.229853E-02  -.231684E-02  -.230628E-02
-.231955E-02  -.230308E-02  -.226967E-02  -.221063E-02  -.218344E-02  -.212692E-02  -.208979E-02  -.203788E-02
-.200509E-02  -.192840E-02  -.183937E-02  -.173476E-02  -.166371E-02  -.155412E-02  -.146468E-02  -.134521E-02
-.123470E-02  -.116641E-02  -.116920E-02  -.109969E-02  -.103016E-02  -.991962E-03  -.978316E-03  -.923221E-03
-.903294E-03  -.873648E-03  -.736524E-03  -.484194E-03  -.422852E-03  -.387113E-03  -.268756E-03  -.104850E-03
 .170214E-04   .148038E-03   .272186E-03   .426915E-03   .555805E-03   .683028E-03   .769772E-03   .892819E-03
 .100588E-02   .109296E-02   .111254E-02   .117435E-02   .123618E-02   .129119E-02   .130788E-02   .137609E-02
 .146942E-02   .156831E-02   .155313E-02   .154357E-02   .162447E-02   .175985E-02   .179491E-02   .184178E-02
 .190711E-02   .197923E-02   .201643E-02   .208446E-02   .211647E-02   .217033E-02   .223917E-02   .230064E-02
 .226530E-02   .226113E-02   .227398E-02   .227624E-02   .222272E-02   .220643E-02   .218218E-02   .212991E-02
 .205482E-02   .211782E-02   .216222E-02   .213527E-02   .216134E-02   .218769E-02   .194632E-02   .170338E-02
 .159462E-02   .144203E-02   .116494E-02   .101156E-02   .900481E-03   .715481E-03   .576171E-03   .697314E-03
 .795723E-03   .748888E-03   .764522E-03   .924022E-03   .830806E-03   .518478E-03   .285225E-03   .144191E-03
-.115642E-03  -.357306E-03  -.626704E-03  -.902164E-03  -.103783E-02  -.102968E-02  -.117541E-02  -.141968E-02
-.162528E-02  -.172326E-02  -.181944E-02  -.191873E-02  -.211779E-02  -.235126E-02  -.255130E-02  -.271088E-02
-.294208E-02  -.311126E-02  -.331231E-02  -.352732E-02  -.352306E-02  -.331535E-02  -.328114E-02  -.328223E-02
-.310724E-02  -.281554E-02  -.285224E-02  -.326228E-02  -.357304E-02  -.361901E-02  -.386888E-02  -.419710E-02
-.437096E-02  -.452889E-02  -.471604E-02  -.465282E-02  -.453217E-02  -.452814E-02  -.452536E-02  -.438720E-02
-.432117E-02  -.425797E-02  -.404623E-02  -.375007E-02  -.354742E-02  -.326995E-02  -.309784E-02  -.312469E-02
-.312067E-02  -.298443E-02  -.287645E-02  -.267467E-02  -.243468E-02  -.223153E-02  -.219541E-02  -.223846E-02
-.222601E-02  -.215250E-02  -.214614E-02  -.212461E-02  -.216253E-02  -.207873E-02  -.191373E-02  -.158913E-02
-.142832E-02  -.114723E-02  -.109644E-02  -.121586E-02  -.118234E-02  -.107948E-02  -.111080E-02  -.111511E-02
-.112347E-02  -.100437E-02  -.703461E-03  -.395796E-03  -.283790E-03  -.185080E-03  -.338686E-04  .146288E-03
 .299541E-03   .466387E-03   .524301E-03   .670251E-03   .967072E-03   .119244E-02   .135904E-02   .165005E-02
 .164939E-02   .144034E-02   .141974E-02   .143242E-02   .126126E-02   .120542E-02   .106447E-02   .839401E-03
 .106525E-02   .165272E-02   .186610E-02   .200190E-02   .244009E-02   .284084E-02   .300027E-02   .312265E-02
 .297301E-02   .267231E-02   .254056E-02   .244446E-02   .212940E-02   .190070E-02   .175114E-02   .146574E-02
 .122297E-02   .139068E-02   .157360E-02   .149368E-02   .139136E-02   .139839E-02   .127013E-02   .115234E-02
 .109216E-02   .919265E-03   .589501E-03   .382878E-03   .183447E-03  -.126206E-03  -.365526E-03  -.576016E-03
-.108290E-02  -.110104E-02  -.283132E-03   .305204E-03   .448701E-03   .915636E-03   .137916E-02   .191421E-02
 .258072E-02   .236344E-02   .143838E-02   .118295E-02   .116569E-02   .728173E-03   .316209E-03  -.877099E-05
-.537909E-03  -.663897E-03  -.357418E-03  -.283531E-03  -.426520E-03  -.366109E-03  -.446713E-03  -.630994E-03
-.482493E-03  -.114059E-03  -.222389E-05   .678546E-04   .336430E-03   .669547E-03   .813695E-03   .907978E-03
 .111305E-02   .148792E-02   .179195E-02   .210215E-02   .247779E-02   .258691E-02   .259016E-02   .309152E-02
 .303318E-02   .185444E-02   .995696E-03   .630239E-03  -.138432E-03  -.680573E-03  -.902658E-03  -.130482E-02
-.186048E-02  -.242849E-02  -.239136E-02  -.149755E-02  -.115759E-02  -.139471E-02  -.113611E-02  -.731839E-03
-.550415E-03  -.153894E-03  -.162294E-03  -.721399E-03  -.101566E-02  -.100266E-02  -.130392E-02  -.174150E-02
-.185388E-02  -.171805E-02  -.194174E-02  -.203260E-02  -.136783E-02  -.631444E-03  -.335666E-03  .673797E-04
 .698070E-03   .141479E-02   .165728E-02   .123723E-02   .899444E-03   .890612E-03   .646830E-03   .383654E-03
 .122556E-03  -.208448E-03  -.151652E-03   .185059E-03   .221194E-03   .429565E-03   .908618E-03   .122658E-02
 .148126E-02   .189044E-02   .223096E-02   .260540E-02   .295152E-02   .316351E-02   .342727E-02   .387806E-02
 .419976E-02   .456224E-02   .499276E-02   .494895E-02   .443523E-02   .410920E-02   .339142E-02   .227544E-02
 .254712E-02   .406218E-02   .471974E-02   .505213E-02   .551798E-02   .694233E-02   .807455E-02   .812675E-02
 .655689E-02   .578054E-02   .608248E-02   .568511E-02   .479511E-02   .441647E-02   .427893E-02   .401557E-02
 .361504E-02   .331219E-02   .304625E-02   .277129E-02   .268637E-02   .305859E-02   .357502E-02   .391051E-02
 .407134E-02   .454502E-02   .521097E-02   .505654E-02   .418533E-02   .390651E-02   .366714E-02   .316168E-02
 .353262E-02   .425858E-02   .429460E-02   .447562E-02   .492132E-02   .528979E-02   .576321E-02   .589339E-02
 .542697E-02   .538123E-02   .556517E-02   .508295E-02   .441274E-02   .401202E-02   .348904E-02   .329679E-02
 .256820E-02   .590587E-03   .593564E-04   .136843E-02   .136216E-02   .103555E-02   .145588E-02   .324309E-03
-.163438E-02  -.250995E-02  -.326915E-02  -.410602E-02  -.501580E-02  -.587523E-02  -.578186E-02  -.560737E-02
-.596244E-02  -.586494E-02  -.639111E-02  -.772506E-02  -.875020E-02  -.975904E-02  -.983498E-02  -.820280E-02
-.725219E-02  -.731738E-02  -.655456E-02  -.490950E-02  -.370914E-02  -.353884E-02  -.388361E-02  -.416866E-02
-.454921E-02  -.483145E-02  -.512361E-02  -.580562E-02  -.679151E-02  -.768026E-02  -.837051E-02  -.908420E-02
-.102941E-01  -.109723E-01  -.996002E-02  -.907748E-02  -.971565E-02  -.882253E-02  -.558793E-02  -.346254E-02
-.263276E-02  -.724110E-03   .154649E-02   .344270E-02   .530226E-02   .661559E-02   .802522E-02   .102216E-01
 .112059E-01   .119036E-01   .147581E-01   .164294E-01   .148053E-01   .140867E-01   .149397E-01   .148297E-01
 .141159E-01   .136199E-01   .133472E-01   .135164E-01   .133360E-01   .128199E-01   .129120E-01   .133112E-01
 .131026E-01   .126210E-01   .126058E-01   .129898E-01   .123584E-01   .107364E-01   .997177E-02   .943927E-02
 .783314E-02   .780057E-02   .983446E-02   .106726E-01   .107251E-01   .120482E-01   .128481E-01   .122170E-01
 .117132E-01   .113178E-01   .104090E-01   .980029E-02   .919885E-02   .785678E-02   .671248E-02   .637829E-02
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 ******************************************
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 **                                      **
 ** SHAKE -- A COMPUTER PROGRAM FOR      **
 **          EARTHQUAKE RESPONSE ANALYSIS **
 **          OF HORIZONTALLY LAYERED SITES **
 **                                      **
 **                                      **
 ** MS-DOS VERSION - CONVERTED TO IBM-PC BY **
 **                  Shyh-Shiun Lai, WCC **
 **                  January 1985        **
 **                                      **
 ** (Modified to Use 16384 Points and 100 **
 **  Soil Layers, S.J. Chiou, August 1995) **
 **                                      **
 ******************************************
 ******************************************
Output file name : TR3C.OUT
Start time : 19``/``/`` --
Start time : 19``/``/`` --

 MAX. NUMBER OF TERMS IN FOURIER TRANSFORM =     16384
 NECESSARY LENGTH OF BLANK COMMON X        =    102419
 EARTH PRESSURE AT REST FOR SAND           =     0.500
1******   OPTION  8  ***  READ RELATION BETWEEN SOIL PROPERTIES AND STRAIN

   CURVES FOR RELATION STRAIN VERSUS SHEAR MODULUS AND DAMPING
```

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
1	0.000100	1.000	0.000100	1.7
1	0.000316	1.000	0.000316	1.7
1	0.001000	1.000	0.001000	1.7
1	0.003160	0.940	0.003160	2.6
1	0.010000	0.820	0.010000	4.5
1	0.031600	0.640	0.031600	7.8
1	0.100000	0.400	0.100000	11.7
1	0.316000	0.210	0.316000	16.3
1	1.000000	0.090	1.000000	20.2
1	3.160000	0.040	3.160000	23.0
1	10.000000	0.020	10.000000	23.0

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
2	0.000100	1.000	0.000100	1.3
2	0.000300	0.999	0.000300	1.3
2	0.001000	0.991	0.001000	1.5
2	0.003000	0.953	0.003000	2.1
2	0.010000	0.830	0.010000	3.8
2	0.030000	0.620	0.030000	6.9
2	0.100000	0.364	0.100000	12.6
2	0.300000	0.181	0.300000	18.9
2	1.000000	0.071	1.000000	24.8
2	3.000000	0.025	3.000000	27.2
2	10.000000	0.010	10.000000	28.9

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
3	0.000100	1.000	0.000100	1.1
3	0.000300	1.000	0.000300	1.1
3	0.001000	0.995	0.001000	1.3
3	0.003000	0.972	0.003000	1.7
3	0.010000	0.879	0.010000	2.9
3	0.030000	0.701	0.030000	5.4
3	0.100000	0.442	0.100000	10.5
3	0.300000	0.230	0.300000	16.6
3	1.000000	0.097	1.000000	22.9
3	3.000000	0.037	3.000000	25.5
3	10.000000	0.014	10.000000	27.0

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
4	0.000100	1.000	0.000100	0.9
4	0.000300	1.000	0.000300	0.9
4	0.001000	0.996	0.001000	1.1
4	0.003000	0.980	0.003000	1.5
4	0.010000	0.910	0.010000	2.3
4	0.030000	0.756	0.030000	4.4
4	0.100000	0.510	0.100000	8.7
4	0.300000	0.283	0.300000	14.6
4	1.000000	0.122	1.000000	21.3
4	3.000000	0.050	3.000000	23.8
4	10.000000	0.019	10.000000	25.5

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
5	0.000100	1.000	0.000100	0.8
5	0.000300	1.000	0.000300	0.8
5	0.001000	0.997	0.001000	0.9
5	0.003000	0.986	0.003000	1.1
5	0.010000	0.932	0.010000	1.9
5	0.030000	0.809	0.030000	3.5
5	0.100000	0.573	0.100000	7.2
5	0.300000	0.338	0.300000	12.7
5	1.000000	0.152	1.000000	19.3
5	3.000000	0.067	3.000000	22.4
5	10.000000	0.025	10.000000	24.0

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
6	0.000100	1.000	0.000100	0.6
6	0.000300	1.000	0.000300	0.6
6	0.001000	0.998	0.001000	0.6
6	0.003000	0.991	0.003000	0.9
6	0.010000	0.955	0.010000	1.3
6	0.030000	0.860	0.030000	2.5
6	0.100000	0.658	0.100000	5.5
6	0.300000	0.417	0.300000	10.3
6	1.000000	0.207	1.000000	16.8
6	3.000000	0.083	3.000000	20.2
6	10.000000	0.032	10.000000	22.5

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
7	0.000100	1.000	0.000100	0.2
7	0.000300	1.000	0.000300	0.4
7	0.001000	1.000	0.001000	0.8
7	0.003000	0.990	0.003000	1.4
7	0.010000	0.960	0.010000	2.8
7	0.030000	0.900	0.030000	5.1
7	0.100000	0.750	0.100000	9.8
7	0.300000	0.550	0.300000	15.5
7	1.000000	0.340	1.000000	21.0
7	3.000000	0.200	3.000000	25.0
7	10.000000	0.120	10.000000	28.0

1****** OPTION 2 *** READ SOIL PROFILE

NEW SOIL PROFILE NO. 1 IDENTIFICATION Transporter Route, HBPP, ISFSI, 08/

ONUMBER OF LAYERS 25 DEPTH TO BEDROCK 85.00
NUMBER OF FIRST SUBMERGED LAYER 4 DEPTH TO WATER LEVEL 6.00

LAYER	TYPE	MAX-MOD	THICKNESS	DEPTH	EFF. PRESS.	MODULUS	DAMPING	UNIT WEIGTH	SHEAR VEL	SVMAX
1	1	3250.097	1.00	0.50	0.061	3250.097	0.0500	0.1250	915.000	915.000
2	1	3250.097	2.00	2.00	0.250	3250.097	0.0500	0.1250	915.000	915.000
3	1	3250.097	3.00	4.50	0.563	3250.097	0.0500	0.1250	915.000	915.000
4	1	3250.097	2.00	7.00	0.813	3250.097	0.0500	0.1250	915.000	915.000
5	1	3250.097	2.00	9.00	0.938	3250.097	0.0500	0.1250	915.000	915.000
6	1	3250.097	2.00	11.00	1.063	3250.097	0.0500	0.1250	915.000	915.000
7	1	3250.097	2.00	13.00	1.188	3250.097	0.0500	0.1250	915.000	915.000
8	1	3250.097	2.00	15.00	1.313	3250.097	0.0500	0.1250	915.000	915.000
9	1	6009.068	2.00	17.00	1.444	6009.068	0.0500	0.1300	1220.000	1220.000
10	1	6009.068	3.00	19.50	1.613	6009.068	0.0500	0.1300	1220.000	1220.000
11	1	6009.068	3.00	22.50	1.815	6009.068	0.0500	0.1300	1220.000	1220.000
12	2	4474.783	5.00	26.50	2.086	4474.783	0.0500	0.1300	1052.791	1052.791
13	2	5388.738	4.00	31.00	2.390	5388.738	0.0500	0.1300	1155.313	1155.313
14	2	5685.408	4.00	35.00	2.660	5685.408	0.0500	0.1300	1186.689	1186.689
15	2	5657.928	4.00	39.00	2.931	5657.928	0.0500	0.1300	1183.818	1183.818
16	2	5913.175	4.00	43.00	3.201	5913.175	0.0500	0.1300	1210.226	1210.226
17	1	13520.403	5.00	47.50	3.505	13520.403	0.0500	0.1300	1830.000	1830.000
18	1	13520.403	5.00	52.50	3.843	13520.403	0.0500	0.1300	1830.000	1830.000
19	3	9925.974	5.00	57.50	4.181	9925.974	0.0500	0.1300	1567.988	1567.988
20	3	10319.356	5.00	62.50	4.519	10319.356	0.0500	0.1300	1598.757	1598.757
21	3	10698.285	5.00	67.50	4.857	10698.285	0.0500	0.1300	1627.846	1627.846
22	3	11064.243	5.00	72.50	5.195	11064.243	0.0500	0.1300	1655.454	1655.454
23	3	11418.479	5.00	77.50	5.533	11418.479	0.0500	0.1300	1681.746	1681.746
24	3	11762.051	5.00	82.50	5.871	11762.051	0.0500	0.1300	1706.859	1706.859
25	BASE					13081.	0.050	0.1300	1800.	

PERIOD = 0.25 FROM AVERAGE SHEARVEL. = 1366.

MAXIMUM AMPLIFICATION = 13.99
FOR FREQUENCY = 4.42 C/SEC.
PERIOD = 0.23 SEC.

1****** OPTION 1 *** READ INPUT MOTION

EARTHQUAKE - SECTION C-C, 08/2002

excerpt from TR3C.OUT

15999 ACCELERATION VALUES AT TIME INTERVAL 0.0050

THE VALUES ARE LISTED ROW BY ROW AS READ FROM CARDS
TRAILING ZEROS ARE ADDED TO GIVE A TOTAL OF16384 VALUES

MAXIMUM ACCELERATION = 1.63302
AT TIME = 23.28 SEC

THE VALUES WILL BE MULTIPLIED BY A FACTOR = 1.000
TO GIVE NEW MAXIMUM ACCELERATION = 1.63302

MEAN SQUARE FREQUENCY = 0.94 C/SEC.

MAX ACCELERATION = 1.69520 FOR FREQUENCIES REMOVED ABOVE 2.50 C/SEC.

1****** OPTION 3 *** READ WHERE OBJECT MOTION IS GIVEN

OBJECT MOTION IN LAYER NUMBER 1 OUTCROPPING

1****** OPTION 4 *** OBTAIN STRAIN COMPATIBLE SOIL PROPERTIES

MAXIMUM NUMBER OF ITERATIONS = 30
MAXIMUM ERROR IN PERCENT = 2.00
FACTOR FOR EFFECTIVE STRAIN IN TIME DOMAIN = 0.65

EARTHQUAKE - SECTION C-C, 08/2002
SOIL PROFILE - Transporter Route, HBPP, ISFSI, 08/

ITERATION NUMBER 1
THE CALCULATION HAS BEEN CARRIED OUT IN THE TIME DOMAIN WITH EFF. STRAIN = .65* MAX. STRAIN

LAYER	TYPE	DEPTH	EFF. STRAIN	NEW DAMP.	DAMP USED	ERROR	NEW G	G USED	ERROR	NEW Vs
1	1	0.5	0.00217	0.023	0.050	-116.9	3118.931	3250.097	-4.2	896.346
2	1	2.0	0.00867	0.043	0.050	-17.2	2713.292	3250.097	-19.8	836.029
3	1	4.5	0.01951	0.064	0.050	22.1	2125.214	3250.097	-39.8	773.935
4	1	7.0	0.03035	0.077	0.050	34.9	2100.648	3250.097	-54.7	735.613
5	1	9.0	0.03901	0.085	0.050	41.3	1937.442	3250.097	-67.8	706.459
6	1	11.0	0.04767	0.092	0.050	45.6	1801.731	3250.097	-80.4	681.268
7	1	13.0	0.05632	0.098	0.050	48.8	1688.814	3250.097	-92.4	659.575
8	1	15.0	0.06496	0.102	0.050	51.2	1592.149	3250.097	-104.1	640.420
9	1	17.0	0.03990	0.086	0.050	41.8	3553.937	6009.068	-69.1	938.234
10	1	19.5	0.04596	0.091	0.050	44.9	3376.767	6009.068	-78.0	914.549
11	1	22.5	0.05323	0.096	0.050	47.7	3192.916	6009.068	-88.2	889.304
12	2	26.5	0.08448	0.118	0.050	57.6	1789.268	4474.783	-150.1	665.724
13	2	31.0	0.08226	0.117	0.050	57.2	2185.265	5388.738	-146.6	735.713
14	2	35.0	0.08814	0.120	0.050	58.3	2222.149	5685.408	-155.9	741.896
15	2	39.0	0.09875	0.125	0.050	60.1	2074.578	5657.928	-172.7	716.838
16	2	43.0	0.10421	0.128	0.050	61.0	2111.799	5913.175	-180.0	723.240
17	1	47.5	0.05034	0.094	0.050	46.7	7341.397	13520.403	-84.2	1348.484
18	1	52.5	0.05563	0.097	0.050	48.5	7060.176	13520.403	-91.5	1322.404
19	3	57.5	0.08295	0.097	0.050	48.4	4786.344	9925.974	-107.4	1088.825
20	3	62.5	0.08668	0.099	0.050	49.3	4878.533	10319.356	-111.5	1099.261
21	3	67.5	0.09023	0.100	0.050	50.2	4965.297	10698.285	-115.5	1108.993
22	3	72.5	0.09362	0.102	0.050	50.9	5047.265	11064.243	-119.2	1118.109
23	3	77.5	0.09687	0.103	0.050	51.6	5124.965	11418.479	-122.8	1126.683
24	3	82.5	0.10000	0.105	0.050	52.2	5198.848	11762.051	-126.2	1134.775

VALUES IN TIME DOMAIN

LAYER	TYPE	THICKNESS FT	DEPTH FT	MAX STRAIN PRCNT	MAX STRESS PSF	TIME SEC
1	1	1.0	0.5	0.00334	104.04	23.47
2	1	2.0	2.0	0.01334	362.02	23.47
3	1	3.0	4.5	0.03002	697.98	23.47
4	1	2.0	7.0	0.04669	980.72	23.47
5	1	2.0	9.0	0.06001	1162.73	23.47
6	1	2.0	11.0	0.07333	1321.26	23.47
7	1	2.0	13.0	0.08664	1463.20	23.47
8	1	2.0	15.0	0.09994	1591.14	23.47
9	1	2.0	17.0	0.06138	2181.40	23.47
10	1	3.0	19.5	0.07071	2387.76	23.47
11	1	3.0	22.5	0.08190	2614.92	23.47
12	2	5.0	26.5	0.12997	2325.56	23.47
13	2	4.0	31.0	0.12655	2765.52	23.47
14	2	4.0	35.0	0.13559	3013.12	23.47
15	2	4.0	39.0	0.15193	3151.87	23.47
16	2	4.0	43.0	0.16032	3385.63	23.47
17	1	5.0	47.5	0.07745	5685.78	23.46
18	1	5.0	52.5	0.08558	6042.09	23.46
19	3	5.0	57.5	0.12762	6108.37	23.46

		FT	FT	PRCNT	PSF	SEC
1	1	1.0	0.5	0.00344	107.15	23.45
2	1	2.0	2.0	0.01646	433.08	23.47
3	1	3.0	4.5	0.04701	985.79	23.47
4	1	2.0	7.0	0.09503	1545.38	23.48
5	1	2.0	9.0	0.15320	1996.01	23.48
6	1	2.0	11.0	0.22188	2448.47	23.48
7	1	2.0	13.0	0.31998	2902.22	23.49
8	1	2.0	15.0	0.49805	3358.52	23.49
9	1	2.0	17.0	0.15888	3768.07	23.48
10	1	3.0	19.5	0.20549	4349.04	23.48
11	1	3.0	22.5	0.27755	5046.20	23.48
12	2	5.0	26.5	6.12152	5884.31	23.52
13	2	4.0	31.0	2.84760	6939.04	23.51
14	2	4.0	35.0	6.58769	7703.14	23.51
15	2	4.0	39.0	8.74897	8431.08	23.50
16	2	4.0	43.0	9.78218	9047.57	23.49
17	1	5.0	47.5	0.20346	9733.69	23.41
18	1	5.0	52.5	0.24327	10667.61	23.39
19	3	5.0	57.5	0.56229	11619.50	23.39
20	3	5.0	62.5	0.62205	12647.65	23.38
21	3	5.0	67.5	0.68916	13692.24	23.36
22	3	5.0	72.5	0.76422	14737.28	23.36
23	3	5.0	77.5	0.84908	15770.24	23.35
24	3	5.0	82.5	0.94845	16782.02	23.35

1

EARTHQUAKE - SECTION C-C, 08/2002
SOIL PROFILE - Transporter Route, HBPP, ISFSI, 08/

ITERATION NUMBER 25
THE CALCULATION HAS BEEN CARRIED OUT IN THE TIME DOMAIN WITH EFF. STRAIN = .65* MAX. STRAIN

LAYER	TYPE	DEPTH	EFF. STRAIN	NEW DAMP.	DAMP USED	ERROR	NEW G	G USED	ERROR	NEW Vs
1	1	0.5	0.00224	0.023	0.023	0.0	3113.650	3113.650	0.0	895.587
2	1	2.0	0.01070	0.047	0.047	0.0	2630.632	2630.632	0.0	823.195
3	1	4.5	0.03055	0.077	0.077	0.0	2097.184	2097.184	0.0	735.007
4	1	7.0	0.06177	0.101	0.101	0.0	1626.260	1626.260	0.0	647.244
5	1	9.0	0.09958	0.117	0.117	0.0	1302.897	1302.897	0.0	579.333
6	1	11.0	0.14422	0.132	0.132	0.0	1103.503	1103.503	0.0	533.163
7	1	13.0	0.20798	0.146	0.146	0.0	907.013	907.014	0.0	483.370
8	1	15.0	0.32373	0.164	0.164	0.0	674.338	674.339	0.0	416.785
9	1	17.0	0.10327	0.118	0.118	0.0	2371.702	2371.702	0.0	766.454
10	1	19.5	0.13357	0.129	0.129	0.0	2116.395	2116.395	0.0	724.027
11	1	22.5	0.18041	0.141	0.141	0.0	1818.109	1818.109	0.0	671.068
12	2	26.5	4.08162	0.276	0.276	0.1	94.705	96.125	-1.5	153.159
13	2	31.0	1.85363	0.262	0.262	0.0	243.352	243.680	-0.1	245.513
14	2	35.0	4.28145	0.277	0.277	0.0	116.941	116.932	0.0	170.192
15	2	39.0	5.65003	0.281	0.281	0.0	96.824	96.367	0.5	154.863
16	2	43.0	6.30281	0.282	0.283	0.0	93.137	92.490	0.7	151.886
17	1	47.5	0.13207	0.128	0.128	0.0	4787.027	4784.091	0.1	1088.903
18	1	52.5	0.15798	0.135	0.135	0.0	4387.168	4385.107	0.0	1042.434
19	3	57.5	0.36517	0.176	0.176	0.0	2067.426	2066.476	0.0	715.602
20	3	62.5	0.40402	0.181	0.181	0.0	2034.103	2033.235	0.0	709.811
21	3	67.5	0.44762	0.187	0.187	0.0	1987.676	1986.815	0.0	701.664
22	3	72.5	0.49635	0.192	0.192	0.0	1929.376	1928.418	0.0	691.297
23	3	77.5	0.55141	0.198	0.198	0.0	1858.454	1857.335	0.1	678.472
24	3	82.5	0.61590	0.204	0.204	0.0	1770.661	1769.412	0.1	662.253

VALUES IN TIME DOMAIN

LAYER	TYPE	THICKNESS FT	DEPTH FT	MAX STRAIN PRCNT	MAX STRESS PSF	TIME SEC
1	1	1.0	0.5	0.00344	107.15	23.45
2	1	2.0	2.0	0.01646	433.08	23.47
3	1	3.0	4.5	0.04701	985.79	23.47
4	1	2.0	7.0	0.09503	1545.38	23.48
5	1	2.0	9.0	0.15320	1996.01	23.48
6	1	2.0	11.0	0.22188	2448.47	23.48
7	1	2.0	13.0	0.31998	2902.23	23.49
8	1	2.0	15.0	0.49805	3358.52	23.49
9	1	2.0	17.0	0.15888	3768.07	23.48
10	1	3.0	19.5	0.20549	4349.04	23.48
11	1	3.0	22.5	0.27755	5046.20	23.48
12	2	5.0	26.5	6.27941	5946.93	23.52
13	2	4.0	31.0	2.85174	6939.78	23.51
14	2	4.0	35.0	6.58685	7702.75	23.51
15	2	4.0	39.0	8.69236	8416.30	23.50
16	2	4.0	43.0	9.69663	9031.19	23.49
17	1	5.0	47.5	0.20319	9726.87	23.41
18	1	5.0	52.5	0.24304	10662.77	23.39
19	3	5.0	57.5	0.56180	11614.77	23.39
20	3	5.0	62.5	0.62157	12643.42	23.38
21	3	5.0	67.5	0.68865	13688.20	23.36
22	3	5.0	72.5	0.76362	14733.05	23.36
23	3	5.0	77.5	0.84833	15765.74	23.35
24	3	5.0	82.5	0.94754	16777.73	23.35

PERIOD = 0.57 FROM AVERAGE SHEARVEL. = 599.

MAXIMUM AMPLIFICATION = 2.24
FOR FREQUENCY = 0.92 C/SEC.
PERIOD = 1.09 SEC.

1****** OPTION 5 *** COMPUTE MOTION IN NEW SUBLAYERS

EARTHQUAKE - SECTION C-C, 08/2002
SOIL DEPOSIT - Transporter Route, HBPP, ISFSI, 08/

LAYER	DEPTH FT	MAX. ACC. G SEC	TIME C/SEC	MEAN SQ. FR. QUIET ZONE	ACC. RATIO ACC. RECORD	PUNCHED CARDS
OUTCR.	0.0	1.69520	23.45	0.94	0.070	2048
WITHIN	1.0	1.69517	23.45	0.94	0.070	0
WITHIN	3.0	1.69487	23.45	0.94	0.070	0
WITHIN	6.0	1.69367	23.45	0.94	0.070	0
WITHIN	8.0	1.69210	23.45	0.94	0.070	0
WITHIN	10.0	1.68963	23.45	0.94	0.070	0
WITHIN	12.0	1.68615	23.45	0.93	0.069	0
WITHIN	14.0	1.68126	23.45	0.92	0.069	0
WITHIN	16.0	1.67415	23.44	0.91	0.068	0
WITHIN	18.0	1.67173	23.44	0.91	0.067	0
WITHIN	21.0	1.66714	23.44	0.90	0.067	0
WITHIN	24.0	1.66108	23.44	0.89	0.066	0
WITHIN	29.0	1.61182	23.36	0.73	0.052	0
WITHIN	33.0	1.63585	23.34	0.76	0.055	0
WITHIN	37.0	1.70526	23.31	0.96	0.067	0

1****** OPTION 5 *** COMPUTE MOTION IN NEW SUBLAYERS

EARTHQUAKE - SECTION C-C, 08/2002
SOIL DEPOSIT - Transporter Route, HBPP, ISFSI, 08/

LAYER	DEPTH FT	MAX. ACC. G SEC	TIME C/SEC	MEAN SQ. FR. QUIET ZONE	ACC. RATIO ACC. RECORD	PUNCHED CARDS
WITHIN	41.0	1.78205	23.30	1.28	0.083	0
WITHIN	45.0	1.82975	23.28	1.50	0.097	0
WITHIN	50.0	1.82806	23.28	1.50	0.097	0
WITHIN	55.0	1.82387	23.28	1.50	0.097	0
WITHIN	60.0	1.81094	23.28	1.49	0.097	0
WITHIN	65.0	1.79372	23.28	1.48	0.096	0
WITHIN	70.0	1.77138	23.28	1.46	0.096	0
WITHIN	75.0	1.74401	23.27	1.43	0.094	0
WITHIN	80.0	1.71175	23.27	1.40	0.093	0
WITHIN	85.0	1.67434	23.27	1.36	0.091	0
OUTCR.	85.0	1.78635	23.24	1.45	0.100	2048

XMAX= 1.6952 SECTION C-C, 08/2002
ACCELERATION VALUES AT OUTCROPPING LAYER 1 - Transporter Route, HBPP, ISFSI, 08/

-0.000814	-0.000917	-0.001015	-0.001108	-0.001196	-0.001278	-0.001354	-0.001422	1
-0.001483	-0.001537	-0.001582	-0.001619	-0.001648	-0.001668	-0.001679	-0.001681	2
-0.001675	-0.001660	-0.001636	-0.001603	-0.001563	-0.001514	-0.001458	-0.001395	3
-0.001324	-0.001247	-0.001164	-0.001076	-0.000983	-0.000885	-0.000784	-0.000680	4
-0.000573	-0.000465	-0.000356	-0.000246	-0.000137	-0.000029	0.000077	0.000181	5
0.000282	0.000378	0.000471	0.000558	0.000640	0.000716	0.000785	0.000847	6
0.000902	0.000949	0.000987	0.001017	0.001038	0.001051	0.001054	0.001048	7
0.001033	0.001009	0.000976	0.000934	0.000884	0.000825	0.000757	0.000683	8
0.000600	0.000511	0.000415	0.000313	0.000206	0.000094	-0.000022	-0.000142	9
-0.000265	-0.000390	-0.000517	-0.000645	-0.000773	-0.000901	-0.001027	-0.001152	10
-0.001275	-0.001394	-0.001510	-0.001621	-0.001728	-0.001829	-0.001924	-0.002013	11
-0.002095	-0.002170	-0.002237	-0.002297	-0.002348	-0.002391	-0.002426	-0.002453	12
-0.002471	-0.002481	-0.002482	-0.002475	-0.002459	-0.002436	-0.002406	-0.002368	13
-0.002323	-0.002271	-0.002214	-0.002151	-0.002082	-0.002010	-0.001933	-0.001852	14
-0.001769	-0.001684	-0.001597	-0.001509	-0.001420	-0.001332	-0.001245	-0.001160	15
-0.001076	-0.000995	-0.000917	-0.000843	-0.000773	-0.000709	-0.000648	-0.000594	16
-0.000546	-0.000504	-0.000468	-0.000439	-0.000416	-0.000401	-0.000392	-0.000391	17
-0.000396	-0.000409	-0.000428	-0.000454	-0.000486	-0.000524	-0.000568	-0.000617	18
-0.000671	-0.000730	-0.000793	-0.000859	-0.000928	-0.000999	-0.001072	-0.001147	19
-0.001222	-0.001297	-0.001371	-0.001444	-0.001515	-0.001584	-0.001649	-0.001711	20
-0.001767	-0.001820	-0.001867	-0.001908	-0.001943	-0.001972	-0.001993	-0.002007	21
-0.002013	-0.002011	-0.002001	-0.001984	-0.001957	-0.001924	-0.001881	-0.001831	22
-0.001772	-0.001706	-0.001632	-0.001552	-0.001464	-0.001371	-0.001271	-0.001166	23
-0.001056	-0.000942	-0.000824	-0.000704	-0.000580	-0.000457	-0.000331	-0.000206	24
-0.000081	0.000042	0.000163	0.000281	0.000396	0.000505	0.000611	0.000709	25
0.000802	0.000886	0.000964	0.001033	0.001094	0.001144	0.001185	0.001215	26
0.001236	0.001245	0.001244	0.001231	0.001207	0.001171	0.001125	0.001067	27
0.000998	0.000918	0.000829	0.000728	0.000618	0.000498	0.000371	0.000234	28
0.000090	-0.000061	-0.000218	-0.000381	-0.000548	-0.000720	-0.000894	-0.001071	29
-0.001248	-0.001428	-0.001605	-0.001783	-0.001957	-0.002129	-0.002297	-0.002461	30
-0.002618	-0.002770	-0.002913	-0.003050	-0.003178	-0.003297	-0.003406	-0.003505	31
-0.003593	-0.003671	-0.003735	-0.003790	-0.003830	-0.003861	-0.003877	-0.003882	32
-0.003873	-0.003854	-0.003820	-0.003777	-0.003720	-0.003653	-0.003574	-0.003486	33
-0.003386	-0.003278	-0.003159	-0.003035	-0.002900	-0.002761	-0.002613	-0.002462	34
-0.002304	-0.002145	-0.001981	-0.001816	-0.001648	-0.001481	-0.001313	-0.001147	35
-0.000981	-0.000821	-0.000660	-0.000507	-0.000355	-0.000211	-0.000070	0.000061	36
0.000189	0.000306	0.000419	0.000521	0.000617	0.000703	0.000782	0.000850	37
0.000912	0.000963	0.001008	0.001041	0.001069	0.001086	0.001099	0.001101	38
0.001099	0.001087	0.001072	0.001049	0.001024	0.000991	0.000958	0.000918	39
0.000878	0.000834	0.000791	0.000744	0.000700	0.000654	0.000612	0.000569	40
0.000530	0.000492	0.000460	0.000429	0.000404	0.000382	0.000367	0.000355	41
0.000351	0.000351	0.000358	0.000369	0.000388	0.000411	0.000441	0.000475	42
0.000517	0.000562	0.000613	0.000667	0.000727	0.000789	0.000855	0.000922	43
0.000993	0.001063	0.001136	0.001206	0.001277	0.001345	0.001413	0.001475	44
0.001536	0.001590	0.001640	0.001683	0.001720	0.001748	0.001770	0.001781	45
0.001785	0.001777	0.001760	0.001731	0.001692	0.001640	0.001578	0.001502	46
0.001416	0.001316	0.001205	0.001081	0.000946	0.000798	0.000640	0.000470	47
0.000290	0.000100	-0.000099	-0.000308	-0.000524	-0.000748	-0.000977	-0.001213	48
-0.001452	-0.001696	-0.001941	-0.002189	-0.002436	-0.002683	-0.002927	-0.003170	49
-0.003406	-0.003640	-0.003864	-0.004083	-0.004292	-0.004492	-0.004680	-0.004857	50
-0.005020	-0.005172	-0.005306	-0.005428	-0.005531	-0.005620	-0.005689	-0.005743	51
-0.005776	-0.005793	-0.005789	-0.005769	-0.005727	-0.005669	-0.005590	-0.005494	52
-0.005378	-0.005247	-0.005096	-0.004931	-0.004747	-0.004550	-0.004336	-0.004112	53
-0.003872	-0.003623	-0.003361	-0.003093	-0.002813	-0.002530	-0.002238	-0.001944	54
-0.001645	-0.001347	-0.001045	-0.000748	-0.000450	-0.000158	0.000131	0.000412	55
0.000688	0.000952	0.001210	0.001453	0.001688	0.001907	0.002116	0.002307	56
0.002485	0.002645	0.002792	0.002918	0.003030	0.003122	0.003198	0.003254	57
0.003296	0.003316	0.003322	0.003308	0.003279	0.003232	0.003172	0.003093	58
0.003003	0.002897	0.002781	0.002650	0.002511	0.002359	0.002202	0.002035	59
0.001863	0.001684	0.001504	0.001318	0.001134	0.000946	0.000763	0.000578	60
0.000400	0.000224	0.000056	-0.000108	-0.000262	-0.000410	-0.000545	-0.000673	61
-0.000787	-0.000891	-0.000981	-0.001061	-0.001124	-0.001176	-0.001212	-0.001236	62
-0.001244	-0.001240	-0.001219	-0.001187	-0.001140	-0.001081	-0.001008	-0.000925	63
-0.000829	-0.000723	-0.000607	-0.000483	-0.000349	-0.000210	-0.000063	0.000087	64
0.000243	0.000400	0.000560	0.000719	0.000879	0.001035	0.001190	0.001339	65
0.001485	0.001622	0.001754	0.001876	0.001989	0.002091	0.002184	0.002263	66
0.002331	0.002384	0.002426	0.002451	0.002464	0.002461	0.002444	0.002411	67
0.002365	0.002303	0.002227	0.002137	0.002034	0.001916	0.001788	0.001646	68
0.001495	0.001333	0.001162	0.000983	0.000798	0.000606	0.000411	0.000211	69

```
16384        0.5
    8
    7    1   10      100.
   11 100. #1 modulus for Clay PI 15 (Vucetic and Dobry 1991)
0.0001     0.000316  0.001     0.00316   0.01      0.0316    0.1       0.316
1.         3.16      10.
1.000      1.000     1.000     .94       .82       .64       .40       .21
.09        .04       .02
   11   1.  damping for Clay PI 15 (Vucetic & Dobry 1991)
0.0001     0.000316  0.001     0.00316   0.01      0.0316    0.1       0.316
1.         3.16      10.
1.7        1.7       1.7       2.6       4.5       7.8       11.7      16.3
20.2       23.0      23.0
   11 100. #2 modulus for Sand (20 to 50 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.000      0.999     0.991     0.953     0.830     0.620     0.364     0.181
0.071      0.025     0.010
   11   1.  damping for Sand (20 to 50 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.250      1.300     1.455     2.080     3.750     6.925     12.600    18.905
24.840     27.2      28.9
   11 100. #3 modulus for Sand (50 to 120 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.000      1.000     0.995     0.972     0.879     0.701     0.442     0.230
0.097      0.037     0.014
   11   1.  damping for Sand (50 to 120 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.090      1.145     1.300     1.665     2.865     5.415     10.465    16.560
22.915     25.5      27.0
   11 100. #4 modulus for Sand (120 to 250 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.000      1.000     0.996     0.980     0.910     0.756     0.510     0.283
0.122      0.050     0.019
   11   1.  damping for Sand (120 to 250 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
0.935      0.935     1.090     1.455     2.340     4.375     8.695     14.580
21.250     23.8      25.5
   11 100. #5 modulus for Sand (250 to 500 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.000      1.000     0.997     0.986     0.932     0.809     0.573     0.338
0.152      0.067     0.025
   11   1.  damping for Sand (250 to 500 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
0.800      0.800     0.900     1.145     1.875     3.490     7.185     12.705
19.270     22.4      24.0
   11 100. #6 modulus for Sand (> 500 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
1.000      1.000     0.998     0.991     0.955     0.860     0.658     0.417
0.207      0.083     0.032
   11   1.  damping for Sand (> 500 ft) (EPRI 1993)
0.0001     0.0003    0.001     0.003     0.01      0.03      0.1       0.3
1.         3.        10.
0.570      0.625     0.625     0.850     1.280     2.500     5.520     10.260
16.770     20.2      22.5
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   11 100. #7 modulus for Weathered Rock
0.0001     0.0003     0.001      0.003      0.01       0.03       0.1        0.3
1.         3.         10.
1.000      1.000      1.000      0.990      0.960      0.900      0.75       0.55
0.34       0.2        0.12
   11   1.  damping for Weathered Rock
0.0001     0.0003     0.001      0.003      0.01       0.03       0.1        0.3
1.         3.         10.
0.24       0.42       0.8        1.4        2.8        5.1        9.8        15.5
21.        25.        28.
    2
    1   25    4 Transporter Route, HBPP, ISFSI, 08/2002
    1    1    1       1.0              0.023       .125   895.587             1.
    2    1    1       2.0              0.047       .125   823.195             1.
    3    1    1       3.0              0.077       .125   735.007             1.
    4    1    1       2.0              0.101       .125   647.244             1.
    5    1    1       2.0              0.117       .125   579.333             1.
    6    1    1       2.0              0.132       .125   533.163             1.
    7    1    1       2.0              0.146       .125   483.370             1.
    8    1    1       2.0              0.164       .125   416.785             1.
    9    1    1       2.0              0.118       .130   766.454             1.
   10    1    1       3.0              0.129       .130   724.027             1.
   11    1    1       3.0              0.141       .130   671.068             1.
   12    2    1       5.0              0.276       .130   153.159             1.
   13    2    1       4.0              0.262       .130   245.513             1.
   14    2    1       4.0              0.277       .130   170.192             1.
   15    2    1       4.0              0.281       .130   154.863             1.
   16    2    1       4.0              0.282       .130   151.886             1.
   17    1    1       5.0              0.128       .130  1088.903             1.
   18    1    1       5.0              0.135       .130  1042.434             1.
   19    3    1       5.0              0.176       .130   715.602             1.
   20    3    1       5.0              0.181       .130   709.811             1.
   21    3    1       5.0              0.187       .130   701.664             1.
   22    3    1       5.0              0.192       .130   691.297             1.
   23    3    1       5.0              0.198       .130   678.472             1.
   24    3    1       5.0              0.204       .130   662.253             1.
   25                                    .05       .130    1800.              1.
    1
1599916384       .005    2(8E15.7) SET 3, SECTION C-C, 08/2002
       1.                    6.
S3CC.AC8
    3
    1    0
    5
    1    2    3    4    5    6    7    8    9   10   11   12   13   14   15
    0    1    1    1    1    1    1    1    1    1    1    1    1    1    1
    1    0    0    0    0    0    0    0    0    0    0    0    0    0    0
    5
   16   17   18   19   20   21   22   23   24   25   25
    1    1    1    1    1    1    1    1    1    1    0
    0    0    0    0    0    0    0    0    0    0    1
    0
```

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 ********************************************
 ********************************************
 **                                        **
 ** SHAKE -- A COMPUTER PROGRAM FOR        **
 **          EARTHQUAKE RESPONSE ANALYSIS  **
 **          OF HORIZONTALLY LAYERED SITES **
 **                                        **
 **                                        **
 ** MS-DOS VERSION - CONVERTED TO IBM-PC BY **
 **                  Shyh-Shiun Lai, WCC   **
 **                  January 1985          **
 **                                        **
 ** (Modified to Use 16384 Points and 100  **
 **  Soil Layers, S.J. Chiou, August 1995) **
 **                                        **
 ********************************************
 ********************************************
Output file name : TR3CI.OUT
Start time : 19``/``/`` --
Start time : 19``/``/`` --

 MAX. NUMBER OF TERMS IN FOURIER TRANSFORM =     16384
 NECESSARY LENGTH OF BLANK COMMON X        =    102419
 EARTH PRESSURE AT REST FOR SAND           =     0.500
1******   OPTION  8  ***  READ RELATION BETWEEN SOIL PROPERTIES AND STRAIN

   CURVES FOR RELATION STRAIN VERSUS SHEAR MODULUS AND DAMPING
```

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
1	0.000100	1.000	0.000100	1.7
1	0.000316	1.000	0.000316	1.7
1	0.001000	1.000	0.001000	1.7
1	0.003160	0.940	0.003160	2.6
1	0.010000	0.820	0.010000	4.5
1	0.031600	0.640	0.031600	7.8
1	0.100000	0.400	0.100000	11.7
1	0.316000	0.210	0.316000	16.3
1	1.000000	0.090	1.000000	20.2
1	3.160000	0.040	3.160000	23.0
1	10.000000	0.020	10.000000	23.0

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
2	0.000100	1.000	0.000100	1.3
2	0.000300	0.999	0.000300	1.3
2	0.001000	0.991	0.001000	1.5
2	0.003000	0.953	0.003000	2.1
2	0.010000	0.830	0.010000	3.8
2	0.030000	0.620	0.030000	6.9
2	0.100000	0.364	0.100000	12.6
2	0.300000	0.181	0.300000	18.9
2	1.000000	0.071	1.000000	24.8
2	3.000000	0.025	3.000000	27.2
2	10.000000	0.010	10.000000	28.9

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
3	0.000100	1.000	0.000100	1.1
3	0.000300	1.000	0.000300	1.1
3	0.001000	0.995	0.001000	1.3
3	0.003000	0.972	0.003000	1.7
3	0.010000	0.879	0.010000	2.9
3	0.030000	0.701	0.030000	5.4
3	0.100000	0.442	0.100000	10.5
3	0.300000	0.230	0.300000	16.6
3	1.000000	0.097	1.000000	22.9
3	3.000000	0.037	3.000000	25.5
3	10.000000	0.014	10.000000	27.0

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
4	0.000100	1.000	0.000100	0.9
4	0.000300	1.000	0.000300	0.9
4	0.001000	0.996	0.001000	1.1
4	0.003000	0.980	0.003000	1.5
4	0.010000	0.910	0.010000	2.3
4	0.030000	0.756	0.030000	4.4
4	0.100000	0.510	0.100000	8.7
4	0.300000	0.283	0.300000	14.6
4	1.000000	0.122	1.000000	21.3
4	3.000000	0.050	3.000000	23.8
4	10.000000	0.019	10.000000	25.5

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
5	0.000100	1.000	0.000100	0.8
5	0.000300	1.000	0.000300	0.8
5	0.001000	0.997	0.001000	0.9
5	0.003000	0.986	0.003000	1.1
5	0.010000	0.932	0.010000	1.9
5	0.030000	0.809	0.030000	3.5
5	0.100000	0.573	0.100000	7.2
5	0.300000	0.338	0.300000	12.7
5	1.000000	0.152	1.000000	19.3
5	3.000000	0.067	3.000000	22.4
5	10.000000	0.025	10.000000	24.0

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
6	0.000100	1.000	0.000100	0.6
6	0.000300	1.000	0.000300	0.6
6	0.001000	0.998	0.001000	0.6
6	0.003000	0.991	0.003000	0.9
6	0.010000	0.955	0.010000	1.3
6	0.030000	0.860	0.030000	2.5
6	0.100000	0.658	0.100000	5.5
6	0.300000	0.417	0.300000	10.3
6	1.000000	0.207	1.000000	16.8
6	3.000000	0.083	3.000000	20.2,
6	10.000000	0.032	10.000000	22.5

MATL TYPE	STRAIN (%)	MOD RED CO	STRAIN (%)	DAMP FACTR
7	0.000100	1.000	0.000100	0.2
7	0.000300	1.000	0.000300	0.4
7	0.001000	1.000	0.001000	0.8
7	0.003000	0.990	0.003000	1.4
7	0.010000	0.960	0.010000	2.8
7	0.030000	0.900	0.030000	5.1
7	0.100000	0.750	0.100000	9.8
7	0.300000	0.550	0.300000	15.5
7	1.000000	0.340	1.000000	21.0
7	3.000000	0.200	3.000000	25.0
7	10.000000	0.120	10.000000	28.0

1****** OPTION 2 *** READ SOIL PROFILE

NEW SOIL PROFILE NO. 1 IDENTIFICATION Transporter Route, HBPP, ISFSI, 08/

0NUMBER OF LAYERS 25 DEPTH TO BEDROCK 85.00
NUMBER OF FIRST SUBMERGED LAYER 4 DEPTH TO WATER LEVEL 6.00

LAYER	TYPE	MAX-MOD	THICKNESS	DEPTH	EFF. PRESS.	MODULUS	DAMPING	UNIT WEIGTH	SHEAR VEL	SVMAX
1	1	3113.649	1.00	0.50	0.063	3113.649	0.0230	0.1250	895.587	895.587
2	1	2630.629	2.00	2.00	0.250	2630.629	0.0470	0.1250	823.195	823.195
3	1	2097.187	3.00	4.50	0.563	2097.187	0.0770	0.1250	735.007	735.007
4	1	1626.261	2.00	7.00	0.813	1626.261	0.1010	0.1250	647.244	647.244
5	1	1302.899	2.00	9.00	0.938	1302.899	0.1170	0.1250	579.333	579.333
6	1	1103.505	2.00	11.00	1.063	1103.505	0.1320	0.1250	533.163	533.163
7	1	907.013	2.00	13.00	1.188	907.013	0.1460	0.1250	483.370	483.370
8	1	674.339	2.00	15.00	1.313	674.339	0.1640	0.1250	416.785	416.785
9	1	2371.699	2.00	17.00	1.444	2371.699	0.1180	0.1300	766.454	766.454
10	1	2116.396	3.00	19.50	1.613	2116.396	0.1290	0.1300	724.027	724.027
11	1	1818.111	3.00	22.50	1.815	1818.111	0.1410	0.1300	671.068	671.068
12	2	94.705	5.00	26.50	2.086	94.705	0.2760	0.1300	153.159	153.159
13	2	243.353	4.00	31.00	2.390	243.353	0.2620	0.1300	245.513	245.513
14	2	116.941	4.00	35.00	2.660	116.941	0.2770	0.1300	170.192	170.192
15	2	96.824	4.00	39.00	2.931	96.824	0.2810	0.1300	154.863	154.863
16	2	93.137	4.00	43.00	3.201	93.137	0.2820	0.1300	151.886	151.886
17	1	4787.026	5.00	47.50	3.505	4787.026	0.1280	0.1300	1088.903	1088.903
18	1	4387.171	5.00	52.50	3.843	4387.171	0.1350	0.1300	1042.434	1042.434
19	3	2067.429	5.00	57.50	4.181	2067.429	0.1760	0.1300	715.602	715.602
20	3	2034.103	5.00	62.50	4.519	2034.103	0.1810	0.1300	709.811	709.811
21	3	1987.677	5.00	67.50	4.857	1987.677	0.1870	0.1300	701.664	701.664
22	3	1929.376	5.00	72.50	5.195	1929.376	0.1920	0.1300	691.297	691.297
23	3	1858.452	5.00	77.50	5.533	1858.452	0.1980	0.1300	678.472	678.472
24	3	1770.661	5.00	82.50	5.871	1770.661	0.2040	0.1300	662.253	662.253
25	BASE					13081.	0.050	0.1300	1800.	

PERIOD = 0.57 FROM AVERAGE SHEARVEL. = 599.

MAXIMUM AMPLIFICATION = 2.25
FOR FREQUENCY = 0.92 C/SEC.
PERIOD = 1.09 SEC.

1****** OPTION 1 *** READ INPUT MOTION

EARTHQUAKE - SECTION C-C, 08/2002

15999 ACCELERATION VALUES AT TIME INTERVAL 0.0050

THE VALUES ARE LISTED ROW BY ROW AS READ FROM CARDS
TRAILING ZEROS ARE ADDED TO GIVE A TOTAL OF16384 VALUES

MAXIMUM ACCELERATION = 1.63302
AT TIME = 23.28 SEC

THE VALUES WILL BE MULTIPLIED BY A FACTOR = 1.000
TO GIVE NEW MAXIMUM ACCELERATION = 1.63302

MEAN SQUARE FREQUENCY = 1.28 C/SEC.

MAX ACCELERATION = 1.65117 FOR FREQUENCIES REMOVED ABOVE 6.00 C/SEC.

1****** OPTION 3 *** READ WHERE OBJECT MOTION IS GIVEN

OBJECT MOTION IN LAYER NUMBER 1 OUTCROPPING

1****** OPTION 5 *** COMPUTE MOTION IN NEW SUBLAYERS

EARTHQUAKE - SECTION C-C, 08/2002
SOIL DEPOSIT - Transporter Route, HBPP, ISFSI, 08/

LAYER	DEPTH FT	MAX. ACC. G	SEC	TIME C/SEC	MEAN SQ. FR. QUIET ZONE	ACC. RATIO ACC. RECORD	PUNCHED CARDS
OUTCR.	0.0	1.65117		23.30	1.28	0.078	2048
WITHIN	1.0	1.65107		23.30	1.28	0.078	0
WITHIN	3.0	1.65016		23.30	1.27	0.078	0
WITHIN	6.0	1.64624		23.30	1.26	0.078	0
WITHIN	8.0	1.64097		23.30	1.24	0.078	0
WITHIN	10.0	1.63255		23.30	1.22	0.077	0
WITHIN	12.0	1.62068		23.31	1.19	0.077	0
WITHIN	14.0	1.60513		23.31	1.15	0.076	0
WITHIN	16.0	1.58338		23.31	1.09	0.075	0
WITHIN	18.0	1.57813		23.31	1.07	0.074	0
WITHIN	21.0	1.57133		23.33	1.04	0.073	0
WITHIN	24.0	1.57131		23.35	1.01	0.072	0
WITHIN	29.0	2.05920		23.19	2.66	0.062	0
WITHIN	33.0	2.18420		23.19	2.94	0.069	0
WITHIN	37.0	2.27066		34.56	2.95	0.077	0

1****** OPTION 5 *** COMPUTE MOTION IN NEW SUBLAYERS

EARTHQUAKE - SECTION C-C, 08/2002
SOIL DEPOSIT - Transporter Route, HBPP, ISFSI, 08/

LAYER	DEPTH FT	MAX. ACC. G	SEC	TIME C/SEC	MEAN SQ. FR. QUIET ZONE	ACC. RATIO ACC. RECORD	PUNCHED CARDS
WITHIN	41.0	2.42340		34.53	3.29	0.101	0
WITHIN	45.0	2.50818		34.51	3.71	0.132	0
WITHIN	50.0	2.48717		34.51	3.69	0.133	0
WITHIN	55.0	2.43712		34.51	3.64	0.132	0
WITHIN	60.0	2.28811		34.51	3.46	0.130	0
WITHIN	65.0	2.08636		34.51	3.20	0.127	0
WITHIN	70.0	1.92147		23.42	2.92	0.120	0
WITHIN	75.0	1.90286		23.41	2.74	0.107	0
WITHIN	80.0	1.99199		23.40	2.88	0.098	0
WITHIN	85.0	2.14788		23.39	3.34	0.098	0
OUTCR.	85.0	2.52498		23.39	3.91	0.131	2048

XMAX= 1.6512 SECTION C-C, 08/2002
ACCELERATION VALUES AT OUTCROPPING LAYER 1 - Transporter Route, HBPP, ISFSI, 08/

-0.001375	-0.001443	-0.001467	-0.001446	-0.001381	-0.001275	-0.001132	-0.000958	1
-0.000758	-0.000541	-0.000314	-0.000086	0.000135	0.000341	0.000525	0.000679	2
0.000799	0.000878	0.000916	0.000909	0.000858	0.000765	0.000633	0.000466	3
0.000270	0.000051	-0.000181	-0.000420	-0.000657	-0.000884	-0.001092	-0.001275	4
-0.001425	-0.001538	-0.001609	-0.001637	-0.001619	-0.001557	-0.001453	-0.001310	5
-0.001133	-0.000929	-0.000705	-0.000469	-0.000229	0.000006	0.000228	0.000428	6
0.000600	0.000738	0.000836	0.000891	0.000900	0.000863	0.000782	0.000658	7
0.000496	0.000301	0.000081	-0.000158	-0.000407	-0.000657	-0.000901	-0.001129	8
-0.001333	-0.001507	-0.001645	-0.001741	-0.001794	-0.001800	-0.001760	-0.001676	9
-0.001551	-0.001389	-0.001197	-0.000981	-0.000750	-0.000512	-0.000275	-0.000049	10
0.000158	0.000338	0.000485	0.000592	0.000656	0.000673	0.000643	0.000566	11
0.000443	0.000280	0.000080	-0.000150	-0.000402	-0.000669	-0.000941	-0.001209	12
-0.001466	-0.001702	-0.001910	-0.002084	-0.002219	-0.002311	-0.002357	-0.002357	13
-0.002313	-0.002227	-0.002103	-0.001948	-0.001768	-0.001573	-0.001369	-0.001166	14
-0.000974	-0.000800	-0.000654	-0.000542	-0.000470	-0.000443	-0.000464	-0.000535	15
-0.000654	-0.000819	-0.001027	-0.001271	-0.001545	-0.001840	-0.002146	-0.002455	16
-0.002755	-0.003038	-0.003291	-0.003508	-0.003679	-0.003799	-0.003862	-0.003865	17
-0.003806	-0.003687	-0.003508	-0.003276	-0.002995	-0.002674	-0.002321	-0.001947	18
-0.001561	-0.001176	-0.000800	-0.000447	-0.000125	0.000157	0.000392	0.000573	19
0.000697	0.000761	0.000767	0.000713	0.000606	0.000450	0.000252	0.000021	20
-0.000234	-0.000503	-0.000775	-0.001040	-0.001288	-0.001510	-0.001696	-0.001841	21
-0.001938	-0.001984	-0.001976	-0.001915	-0.001802	-0.001643	-0.001440	-0.001202	22
-0.000936	-0.000652	-0.000359	-0.000068	0.000212	0.000471	0.000701	0.000894	23
0.001044	0.001144	0.001194	0.001191	0.001136	0.001031	0.000882	0.000691	24
0.000469	0.000222	-0.000039	-0.000307	-0.000570	-0.000821	-0.001047	-0.001244	25
-0.001403	-0.001518	-0.001586	-0.001604	-0.001572	-0.001493	-0.001366	-0.001201	26
-0.001001	-0.000776	-0.000532	-0.000281	-0.000031	0.000206	0.000422	0.000608	27
0.000756	0.000859	0.000912	0.000912	0.000858	0.000748	0.000588	0.000378	28
0.000126	-0.000162	-0.000476	-0.000809	-0.001149	-0.001487	-0.001812	-0.002115	29
-0.002386	-0.002620	-0.002806	-0.002943	-0.003026	-0.003055	-0.003028	-0.002952	30
-0.002826	-0.002661	-0.002461	-0.002237	-0.001995	-0.001750	-0.001507	-0.001280	31
-0.001076	-0.000905	-0.000773	-0.000688	-0.000651	-0.000668	-0.000737	-0.000858	32
-0.001026	-0.001238	-0.001485	-0.001761	-0.002054	-0.002359	-0.002659	-0.002949	33
-0.003215	-0.003452	-0.003645	-0.003793	-0.003886	-0.003924	-0.003900	-0.003819	34
-0.003678	-0.003487	-0.003245	-0.002965	-0.002650	-0.002316	-0.001967	-0.001619	35
-0.001277	-0.000958	-0.000665	-0.000412	-0.000200	-0.000041	0.000069	0.000120	36
0.000121	0.000067	-0.000032	-0.000174	-0.000348	-0.000549	-0.000761	-0.000981	37
-0.001192	-0.001388	-0.001555	-0.001688	-0.001774	-0.001813	-0.001793	-0.001718	38
-0.001581	-0.001390	-0.001141	-0.000847	-0.000508	-0.000138	0.000258	0.000664	39
0.001075	0.001474	0.001855	0.002203	0.002513	0.002771	0.002978	0.003122	40
0.003207	0.003226	0.003186	0.003087	0.002937	0.002740	0.002509	0.002249	41
0.001976	0.001696	0.001425	0.001170	0.000944	0.000752	0.000607	0.000509	42
0.000468	0.000481	0.000551	0.000673	0.000846	0.001059	0.001309	0.001583	43
0.001873	0.002164	0.002449	0.002712	0.002947	0.003139	0.003282	0.003367	44
0.003390	0.003344	0.003233	0.003052	0.002809	0.002504	0.002149	0.001749	45
0.001316	0.000860	0.000394	-0.000071	-0.000522	-0.000950	-0.001340	-0.001688	46
-0.001982	-0.002221	-0.002397	-0.002511	-0.002563	-0.002557	-0.002497	-0.002392	47
-0.002247	-0.002076	-0.001887	-0.001694	-0.001506	-0.001338	-0.001196	-0.001095	48
-0.001039	-0.001038	-0.001094	-0.001211	-0.001386	-0.001622	-0.001909	-0.002246	49
-0.002620	-0.003024	-0.003444	-0.003871	-0.004289	-0.004689	-0.005055	-0.005379	50
-0.005647	-0.005854	-0.005989	-0.006052	-0.006036	-0.005945	-0.005778	-0.005543	51
-0.005242	-0.004891	-0.004492	-0.004065	-0.003616	-0.003164	-0.002716	-0.002292	52
-0.001896	-0.001547	-0.001247	-0.001009	-0.000833	-0.000728	-0.000686	-0.000714	53
-0.000800	-0.000943	-0.001130	-0.001355	-0.001603	-0.001865	-0.002124	-0.002373	54
-0.002594	-0.002780	-0.002916	-0.002999	-0.003017	-0.002971	-0.002852	-0.002668	55
-0.002415	-0.002103	-0.001733	-0.001321	-0.000871	-0.000400	0.000084	0.000564	56
0.001032	0.001469	0.001872	0.002223	0.002519	0.002749	0.002915	0.003007	57
0.003032	0.002987	0.002883	0.002720	0.002513	0.002266	0.001996	0.001709	58
0.001423	0.001145	0.000890	0.000665	0.000483	0.000346	0.000265	0.000238	59
0.000272	0.000359	0.000502	0.000688	0.000917	0.001174	0.001454	0.001739	60
0.002025	0.002292	0.002536	0.002740	0.002900	0.003003	0.003048	0.003026	61
0.002939	0.002785	0.002569	0.002294	0.001970	0.001602	0.001206	0.000788	62
0.000367	-0.000050	-0.000446	-0.000811	-0.001131	-0.001399	-0.001602	-0.001739	63
-0.001801	-0.001791	-0.001704	-0.001547	-0.001323	-0.001042	-0.000710	-0.000342	64
0.000055	0.000463	0.000872	0.001266	0.001635	0.001965	0.002248	0.002471	65
0.002632	0.002723	0.002743	0.002691	0.002572	0.002387	0.002146	0.001855	66
0.001526	0.001168	0.000796	0.000420	0.000053	-0.000294	-0.000609	-0.000884	67
-0.001111	-0.001284	-0.001398	-0.001454	-0.001450	-0.001392	-0.001281	-0.001127	68
-0.000935	-0.000719	-0.000485	-0.000248	-0.000015	0.000200	0.000389	0.000542	69

Attachment E

QUAD4MU

Input and Output Excerpts

(see Table 8-6 for listing of files)

HBSOILNW.DAT

```
4          FOR HUMBOLDT BAY POWER PLANT, 08/2002
11     #1 modulus for Clay PI 15 (Vucetic and Dobry 1991)
 0.0001  0.000316     0.001   0.00316      0.01    0.0316       0.1     0.316
     1.      3.16       10.
  1.000     1.000     1.000       .94       .82       .64       .40       .21
   .09       .04       .02
11     damping for Clay PI 15 (Vucetic & Dobry 1991)
 0.0001  0.000316     0.001   0.00316      0.01    0.0316       0.1     0.316
     1.      3.16       10.
   1.7       1.7       1.7       2.6       4.5       7.8      11.7      16.3
  20.2      23.0      23.0
11     #2 modulus for Sand (20 to 50 ft) (EPRI 1993)
 0.0001    0.0003     0.001     0.003      0.01      0.03       0.1       0.3
     1.        3.       10.
  1.000     0.999     0.991     0.953     0.830     0.620     0.364     0.181
  0.071     0.025     0.010
11     damping for Sand (20 to 50 ft) (EPRI 1993)
 0.0001    0.0003     0.001     0.003      0.01      0.03       0.1       0.3
     1.        3.       10.
  1.250     1.300     1.455     2.080     3.750     6.925    12.600    18.905
 24.840    27.200    28.900
11     #3 modulus for Clay PI 15 (Vucetic and Dobry 1991)
 0.0001  0.000316     0.001   0.00316      0.01    0.0316       0.1     0.316
     1.      3.16       10.
  1.000     1.000     1.000       .94       .82       .64       .40       .21
   .09       .04       .02
11     damping for Clay PI 15 (Vucetic & Dobry 1991)
 0.0001  0.000316     0.001   0.00316      0.01    0.0316       0.1     0.316
     1.      3.16       10.
   1.7       1.7       1.7       2.6       4.5       7.8      11.7      16.3
  20.2      23.0      23.0
11     #4 modulus for Sand (50 to 120 ft) (EPRI 1993)
 0.0001    0.0003     0.001     0.003      0.01      0.03       0.1       0.3
     1.        3.       10.
  1.000     1.000     0.995     0.972     0.879     0.701     0.442     0.230
  0.097     0.037     0.014
11     damping for Sand (50 to 120 ft) (EPRI 1993)
 0.0001    0.0003     0.001     0.003      0.01      0.03       0.1       0.3
     1.        3.       10.
  1.090     1.145     1.300     1.665     2.865     5.415    10.465    16.560
 22.915    25.500    27.000
```

TR1C.Q4I

```
TR1C: HUMBOLDT BAY, TRANSPORTER ROUTE, FOLE, 09/2002
UNITS (E for English, S for SI):                                 *** (A1)          ***
E
      DRF        PRM     ROCKVP     ROCKVS    ROCKRHO            *** (5F10.0)      ***
        1       0.65      7560.      1880.       130.
 NELM NDPT NSLP                                                  *** (3I5)         ***
 1035 1025    1
KGMAX KGEQ N1EQ N2EQ N3EQ NUMB    KV KSAV                        *** (8I5)         ***
1200012040    1   112000   20    1    0
     DTEQ     EQMUL1     EQMUL2     UGMAX1     UGMAX2 HDRX HDRY NPLX NPLY    PRINPUT ***
(5F10.0,4I5,F10.0) ***
    0.005        1.0        1.0                          2    0    0    0       0.25
EARTHQUAKE INPUT FILE NAME(S) & FORMAT(S) (* for FREE FORMAT)   *** (A)           ***
TR1CI.Q25
(8F9.6)
 SOUT AOUT KOUT                                                  *** (3I5)         ***
    0    1    1
ACCELERATION OUTPUT FORMAT (M or C), FILE PREFIX, AND SUFFIX:   *** (A)          ****
MULTIPLE
TR1C
Q4A
SEISMIC COEFF OUT[UT FORMAT (M OR C), FILE PREFIX, AND SUFFIX: ***(A)
MULTIPLE
TR1C
QSC
NSEQ ESEQ   ***(2I5)
   44  187
NOSEQ
  709  710  711  739  740  768  769  797  798  826  827  828  856  857  885
  886  914  915  943  944  971  972  998  999 1024 1049 1074 1099 1100 1125
 1149 1172 1194 1215 1235 1254 1272 1289 1288 1304 1320 1336 1352 1351
ELSEQ
  685  686  712  713  714  739  740  741  742  766  767  768  769  770  793
  794  795  796  797  798  799  820  821  822  823  824  825  826  827  847
  848  849  850  851  852  853  854  855  874  875  876  877  878  879  880
  881  882  883  901  902  903  904  905  906  907  908  909  910  911  928
  929  930  931  932  933  934  935  936  937  938  954  955  956  957  958
  959  960  961  962  963  964  979  980  981  982  983  984  985  986  987
  988 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1027 1028 1029 1030
 1031 1032 1033 1034 1035 1036 1051 1052 1053 1054 1055 1056 1057 1058 1059
 1060 1061 1075 1076 1077 1078 1079 1080 1081 1082 1083 1084 1085 1099 1100
 1101 1102 1103 1104 1105 1106 1107 1108 1122 1123 1124 1125 1126 1127 1128
 1129 1130 1144 1145 1146 1147 1148 1149 1150 1151 1165 1166 1167 1168 1169
 1170 1171 1185 1186 1187 1188 1189 1190 1204 1205 1206 1207 1208 1222 1223
 1224 1225 1239 1240 1255 1270 1285
```

*** (6I5,5F10.0,I5) ***

N	NP1	NP2	NP3	NP4	TYPE	DENS	PO	GMX	G	XL LSTR
1	1	2	27	26	1	125.00	.33	3275.43	2620.34	.10000
2	2	3	28	27	1	125.00	.33	3275.43	2620.34	.10000
3	3	4	29	28	1	125.00	.33	3275.43	2620.34	.10000
4	4	5	30	29	1	125.00	.47	3275.43	2620.34	.10000
5	5	6	31	30	1	125.00	.47	3275.43	2620.34	.10000
6	6	7	32	31	1	125.00	.47	3275.43	2620.34	.10000
7	7	8	33	32	1	125.00	.47	3275.43	2620.34	.10000
8	8	9	34	33	1	125.00	.47	3275.43	2620.34	.10000
9	9	10	35	34	1	125.00	.47	5822.98	4658.39	.10000
10	10	11	36	35	1	125.00	.47	5822.98	4658.39	.10000
11	11	12	37	36	1	125.00	.47	5822.98	4658.39	.10000
12	12	13	38	37	2	130.00	.47	4653.25	3722.60	.10000
13	13	14	39	38	2	130.00	.47	5610.63	4488.50	.10000
14	14	15	40	39	2	130.00	.47	5924.63	4739.70	.10000
15	15	16	41	40	2	130.00	.47	5877.10	4701.68	.10000
16	16	17	42	41	2	130.00	.47	6145.82	4916.66	.10000
17	17	18	43	42	3	130.00	.47	13625.78	10900.62	.10000
18	18	19	44	43	3	130.00	.47	13625.78	10900.62	.10000
19	19	20	45	44	4	130.00	.47	10344.71	8275.77	.10000
20	20	21	46	45	4	130.00	.47	10758.58	8606.86	.10000
21	21	22	47	46	4	130.00	.47	11157.10	8925.68	.10000
22	22	23	48	47	4	130.00	.47	11541.87	9233.50	.10000
23	23	24	49	48	4	130.00	.47	11914.22	9531.38	.10000
24	24	25	50	49	4	130.00	.47	12275.28	9820.22	.10000
25	26	27	52	51	1	125.00	.33	3275.43	2620.34	.10000
26	27	28	53	52	1	125.00	.33	3275.43	2620.34	.10000
27	28	29	54	53	1	125.00	.33	3275.43	2620.34	.10000
28	29	30	55	54	1	125.00	.47	3275.43	2620.34	.10000
29	30	31	56	55	1	125.00	.47	3275.43	2620.34	.10000
30	31	32	57	56	1	125.00	.47	3275.43	2620.34	.10000
31	32	33	58	57	1	125.00	.47	3275.43	2620.34	.10000
32	33	34	59	58	1	125.00	.47	3275.43	2620.34	.10000
33	34	35	60	59	1	125.00	.47	5822.98	4658.39	.10000
34	35	36	61	60	1	125.00	.47	5822.98	4658.39	.10000
35	36	37	62	61	1	125.00	.47	5822.98	4658.39	.10000
36	37	38	63	62	2	130.00	.47	4653.25	3722.60	.10000
37	38	39	64	63	2	130.00	.47	5610.63	4488.50	.10000
38	39	40	65	64	2	130.00	.47	5924.63	4739.70	.10000
39	40	41	66	65	2	130.00	.47	5877.10	4701.68	.10000
40	41	42	67	66	2	130.00	.47	6145.82	4916.66	.10000
41	42	43	68	67	3	130.00	.47	13625.78	10900.62	.10000
42	43	44	69	68	3	130.00	.47	13625.78	10900.62	.10000
43	44	45	70	69	4	130.00	.47	10344.71	8275.77	.10000
44	45	46	71	70	4	130.00	.47	10758.58	8606.86	.10000
45	46	47	72	71	4	130.00	.47	11157.10	8925.68	.10000
46	47	48	73	72	4	130.00	.47	11541.87	9233.50	.10000
47	48	49	74	73	4	130.00	.47	11914.22	9531.38	.10000
48	49	50	75	74	4	130.00	.47	12275.28	9820.22	.10000
49	51	52	77	76	1	125.00	.33	3275.43	2620.34	.10000
50	52	53	78	77	1	125.00	.33	3275.43	2620.34	.10000
51	53	54	79	78	1	125.00	.33	3275.43	2620.34	.10000
52	54	55	80	79	1	125.00	.47	3275.43	2620.34	.10000
53	55	56	81	80	1	125.00	.47	3275.43	2620.34	.10000
54	56	57	82	81	1	125.00	.47	3275.43	2620.34	.10000
55	57	58	83	82	1	125.00	.47	3275.43	2620.34	.10000
56	58	59	84	83	1	125.00	.47	3275.43	2620.34	.10000
57	59	60	85	84	1	125.00	.47	5822.98	4658.39	.10000
58	60	61	86	85	1	125.00	.47	5822.98	4658.39	.10000
59	61	62	87	86	1	125.00	.47	5822.98	4658.39	.10000
60	62	63	88	87	2	130.00	.47	4653.25	3722.60	.10000
61	63	64	89	88	2	130.00	.47	5610.63	4488.50	.10000
62	64	65	90	89	2	130.00	.47	5924.63	4739.70	.10000
63	65	66	91	90	2	130.00	.47	5877.10	4701.68	.10000
64	66	67	92	91	2	130.00	.47	6145.82	4916.66	.10000
65	67	68	93	92	3	130.00	.47	13625.78	10900.62	.10000
66	68	69	94	93	3	130.00	.47	13625.78	10900.62	.10000
67	69	70	95	94	4	130.00	.47	10344.71	8275.77	.10000
68	70	71	96	95	4	130.00	.47	10758.58	8606.86	.10000
69	71	72	97	96	4	130.00	.47	11157.10	8925.68	.10000
70	72	73	98	97	4	130.00	.47	11541.87	9233.50	.10000
71	73	74	99	98	4	130.00	.47	11914.22	9531.38	.10000
72	74	75	100	99	4	130.00	.47	12275.28	9820.22	.10000
73	76	77	102	101	1	125.00	.33	3275.43	2620.34	.10000
74	77	78	103	102	1	125.00	.33	3275.43	2620.34	.10000
75	78	79	104	103	1	125.00	.33	3275.43	2620.34	.10000
76	79	80	105	104	1	125.00	.47	3275.43	2620.34	.10000
77	80	81	106	105	1	125.00	.47	3275.43	2620.34	.10000
78	81	82	107	106	1	125.00	.47	3275.43	2620.34	.10000
79	82	83	108	107	1	125.00	.47	3275.43	2620.34	.10000
80	83	84	109	108	1	125.00	.47	3275.43	2620.34	.10000
81	84	85	110	109	1	125.00	.47	5822.98	4658.39	.10000
82	85	86	111	110	1	125.00	.47	5822.98	4658.39	.10000
83	86	87	112	111	1	125.00	.47	5822.98	4658.39	.10000
84	87	88	113	112	2	130.00	.47	4653.25	3722.60	.10000
85	88	89	114	113	2	130.00	.47	5610.63	4488.50	.10000
86	89	90	115	114	2	130.00	.47	5924.63	4739.70	.10000
87	90	91	116	115	2	130.00	.47	5877.10	4701.68	.10000
88	91	92	117	116	2	130.00	.47	6145.82	4916.66	.10000
89	92	93	118	117	3	130.00	.47	13625.78	10900.62	.10000
90	93	94	119	118	3	130.00	.47	13625.78	10900.62	.10000
91	94	95	120	119	4	130.00	.47	10344.71	8275.77	.10000
92	95	96	121	120	4	130.00	.47	10758.58	8606.86	.10000
93	96	97	122	121	4	130.00	.47	11157.10	8925.68	.10000
94	97	98	123	122	4	130.00	.47	11541.87	9233.50	.10000
95	98	99	124	123	4	130.00	.47	11914.22	9531.38	.10000
96	99	100	125	124	4	130.00	.47	12275.28	9820.22	.10000
97	101	102	127	126	1	125.00	.33	3275.43	2620.34	.10000
98	102	103	128	127	1	125.00	.33	3275.43	2620.34	.10000
99	103	104	129	128	1	125.00	.33	3275.43	2620.34	.10000
100	104	105	130	129	1	125.00	.47	3275.43	2620.34	.10000
101	105	106	131	130	1	125.00	.47	3275.43	2620.34	.10000
102	106	107	132	131	1	125.00	.47	3275.43	2620.34	.10000
103	107	108	133	132	1	125.00	.47	3275.43	2620.34	.10000
104	108	109	134	133	1	125.00	.47	3275.43	2620.34	.10000
105	109	110	135	134	1	125.00	.47	5822.98	4658.39	.10000
106	110	111	136	135	1	125.00	.47	5822.98	4658.39	.10000
107	111	112	137	136	1	125.00	.47	5822.98	4658.39	.10000
108	112	113	138	137	2	130.00	.47	4653.25	3722.60	.10000
109	113	114	139	138	2	130.00	.47	5610.63	4488.50	.10000
110	114	115	140	139	2	130.00	.47	5924.63	4739.70	.10000
111	115	116	141	140	2	130.00	.47	5877.10	4701.68	.10000
112	116	117	142	141	2	130.00	.47	6145.82	4916.66	.10000
113	117	118	143	142	3	130.00	.47	13625.78	10900.62	.10000
114	118	119	144	143	3	130.00	.47	13625.78	10900.62	.10000
115	119	120	145	144	4	130.00	.47	10344.71	8275.77	.10000
116	120	121	146	145	4	130.00	.47	10758.58	8606.86	.10000
117	121	122	147	146	4	130.00	.47	11157.10	8925.68	.10000
118	122	123	148	147	4	130.00	.47	11541.87	9233.50	.10000
119	123	124	149	148	4	130.00	.47	11914.22	9531.38	.10000
120	124	125	150	149	4	130.00	.47	12275.28	9820.22	.10000
121	126	127	152	151	1	125.00	.33	3275.43	2620.34	.10000
122	127	128	153	152	1	125.00	.33	3275.43	2620.34	.10000
123	128	129	154	153	1	125.00	.33	3275.43	2620.34	.10000
124	129	130	155	154	1	125.00	.47	3275.43	2620.34	.10000
125	130	131	156	155	1	125.00	.47	3275.43	2620.34	.10000
126	131	132	157	156	1	125.00	.47	3275.43	2620.34	.10000
127	132	133	158	157	1	125.00	.47	3275.43	2620.34	.10000
128	133	134	159	158	1	125.00	.47	3275.43	2620.34	.10000
129	134	135	160	159	1	125.00	.47	5822.98	4658.39	.10000
130	135	136	161	160	1	125.00	.47	5822.98	4658.39	.10000
131	136	137	162	161	1	125.00	.47	5822.98	4658.39	.10000
132	137	138	163	162	2	130.00	.47	4653.25	3722.60	.10000
133	138	139	164	163	2	130.00	.47	5610.63	4488.50	.10000
134	139	140	165	164	2	130.00	.47	5924.63	4739.70	.10000
135	140	141	166	165	2	130.00	.47	5877.10	4701.68	.10000
136	141	142	167	166	2	130.00	.47	6145.82	4916.66	.10000
137	142	143	168	167	3	130.00	.47	13625.78	10900.62	.10000
138	143	144	169	168	3	130.00	.47	13625.78	10900.62	.10000
139	144	145	170	169	4	130.00	.47	10344.71	8275.77	.10000
140	145	146	171	170	4	130.00	.47	10758.58	8606.86	.10000
141	146	147	172	171	4	130.00	.47	11157.10	8925.68	.10000
142	147	148	173	172	4	130.00	.47	11541.87	9233.50	.10000
143	148	149	174	173	4	130.00	.47	11914.22	9531.38	.10000
144	149	150	175	174	4	130.00	.47	12275.28	9820.22	.10000
145	151	152	177	176	1	125.00	.33	3275.43	2620.34	.10000
146	152	153	178	177	1	125.00	.33	3275.43	2620.34	.10000
147	153	154	179	178	1	125.00	.33	3275.43	2620.34	.10000
148	154	155	180	179	1	125.00	.47	3275.43	2620.34	.10000
149	155	156	181	180	1	125.00	.47	3275.43	2620.34	.10000
150	156	157	182	181	1	125.00	.47	3275.43	2620.34	.10000
151	157	158	183	182	1	125.00	.47	3275.43	2620.34	.10000
152	158	159	184	183	1	125.00	.47	3275.43	2620.34	.10000
153	159	160	185	184	1	125.00	.47	5822.98	4658.39	.10000
154	160	161	186	185	1	125.00	.47	5822.98	4658.39	.10000
155	161	162	187	186	1	125.00	.47	5822.98	4658.39	.10000
156	162	163	188	187	2	130.00	.47	4653.25	3722.60	.10000
157	163	164	189	188	2	130.00	.47	5610.63	4488.50	.10000
158	164	165	190	189	2	130.00	.47	5924.63	4739.70	.10000
159	165	166	191	190	2	130.00	.47	5877.10	4701.68	.10000
160	166	167	192	191	2	130.00	.47	6145.82	4916.66	.10000
161	167	168	193	192	3	130.00	.47	13625.78	10900.62	.10000
162	168	169	194	193	3	130.00	.47	13625.78	10900.62	.10000
163	169	170	195	194	4	130.00	.47	10344.71	8275.77	.10000
164	170	171	196	195	4	130.00	.47	10758.58	8606.86	.10000
165	171	172	197	196	4	130.00	.47	11157.10	8925.68	.10000
166	172	173	198	197	4	130.00	.47	11541.87	9233.50	.10000
167	173	174	199	198	4	130.00	.47	11914.22	9531.38	.10000
168	174	175	200	199	4	130.00	.47	12275.28	9820.22	.10000
169	176	177	202	201	1	125.00	.33	3275.43	2620.34	.10000
170	177	178	203	202	1	125.00	.33	3275.43	2620.34	.10000
171	178	179	204	203	1	125.00	.33	3275.43	2620.34	.10000
172	179	180	205	204	1	125.00	.47	3275.43	2620.34	.10000
173	180	181	206	205	1	125.00	.47	3275.43	2620.34	.10000
174	181	182	207	206	1	125.00	.47	3275.43	2620.34	.10000
175	182	183	208	207	1	125.00	.47	3275.43	2620.34	.10000
176	183	184	209	208	1	125.00	.47	3275.43	2620.34	.10000
177	184	185	210	209	1	125.00	.47	5822.98	4658.39	.10000
178	185	186	211	210	1	125.00	.47	5822.98	4658.39	.10000
179	186	187	212	211	1	125.00	.47	5822.98	4658.39	.10000
180	187	188	213	212	2	130.00	.47	4653.25	3722.60	.10000
181	188	189	214	213	2	130.00	.47	5610.63	4488.50	.10000
182	189	190	215	214	2	130.00	.47	5924.63	4739.70	.10000
183	190	191	216	215	2	130.00	.47	5877.10	4701.68	.10000
184	191	192	217	216	2	130.00	.47	6145.82	4916.66	.10000
185	192	193	218	217	3	130.00	.47	13625.78	10900.62	.10000
186	193	194	219	218	3	130.00	.47	13625.78	10900.62	.10000
187	194	195	220	219	4	130.00	.47	10344.71	8275.77	.10000
188	195	196	221	220	4	130.00	.47	10758.58	8606.86	.10000
189	196	197	222	221	4	130.00	.47	11157.10	8925.68	.10000
190	197	198	223	222	4	130.00	.47	11541.87	9233.50	.10000
191	198	199	224	223	4	130.00	.47	11914.22	9531.38	.10000
192	199	200	225	224	4	130.00	.47	12275.28	9820.22	.10000
193	201	202	227	226	1	125.00	.33	3275.43	2620.34	.10000
194	202	203	228	227	1	125.00	.33	3275.43	2620.34	.10000
195	203	204	229	228	1	125.00	.33	3275.43	2620.34	.10000
196	204	205	230	229	1	125.00	.47	3275.43	2620.34	.10000
197	205	206	231	230	1	125.00	.47	3275.43	2620.34	.10000
198	206	207	232	231	1	125.00	.47	3275.43	2620.34	.10000
199	207	208	233	232	1	125.00	.47	3275.43	2620.34	.10000
200	208	209	234	233	1	125.00	.47	3275.43	2620.34	.10000
201	209	210	235	234	1	125.00	.47	5822.98	4658.39	.10000
202	210	211	236	235	1	125.00	.47	5822.98	4658.39	.10000
203	211	212	237	236	1	125.00	.47	5822.98	4658.39	.10000
204	212	213	238	237	2	130.00	.47	4653.25	3722.60	.10000
205	213	214	239	238	2	130.00	.47	5610.63	4488.50	.10000
206	214	215	240	239	2	130.00	.47	5924.63	4739.70	.10000
207	215	216	241	240	2	130.00	.47	5877.10	4701.68	.10000
208	216	217	242	241	2	130.00	.47	6145.82	4916.66	.10000
209	217	218	243	242	3	130.00	.47	13625.78	10900.62	.10000
210	218	219	244	243	3	130.00	.47	13625.78	10900.62	.10000
211	219	220	245	244	4	130.00	.47	10344.71	8275.77	.10000
212	220	221	246	245	4	130.00	.47	10758.58	8606.86	.10000
213	221	222	247	246	4	130.00	.47	11157.10	8925.68	.10000
214	222	223	248	247	4	130.00	.47	11541.87	9233.50	.10000
215	223	224	249	248	4	130.00	.47	11914.22	9531.38	.10000
216	224	225	250	249	4	130.00	.47	12275.28	9820.22	.10000
217	226	227	252	251	1	125.00	.33	3275.43	2620.34	.10000
218	227	228	253	252	1	125.00	.33	3275.43	2620.34	.10000
219	228	229	254	253	1	125.00	.33	3275.43	2620.34	.10000
220	229	230	255	254	1	125.00	.47	3275.43	2620.34	.10000
221	230	231	256	255	1	125.00	.47	3275.43	2620.34	.10000
222	231	232	257	256	1	125.00	.47	3275.43	2620.34	.10000
223	232	233	258	257	1	125.00	.47	3275.43	2620.34	.10000
224	233	234	259	258	1	125.00	.47	3275.43	2620.34	.10000
225	234	235	260	259	1	125.00	.47	5822.98	4658.39	.10000

226	235	236	261	260	1	125.00	.47	5822.98	4658.39	.10000
227	236	237	262	261	1	125.00	.47	5822.98	4658.39	.10000
228	237	238	263	262	2	130.00	.47	4653.25	3722.60	.10000
229	238	239	264	263	2	130.00	.47	5610.63	4488.50	.10000
230	239	240	265	264	2	130.00	.47	5924.63	4739.70	.10000
231	240	241	266	265	2	130.00	.47	5877.10	4701.68	.10000
232	241	242	267	266	2	130.00	.47	6145.82	4916.66	.10000
233	242	243	268	267	1	130.00	.47	13625.78	10900.62	.10000
234	243	244	269	268	2	130.00	.47	13625.78	10900.62	.10000
235	244	245	270	269	4	130.00	.47	10344.71	8275.77	.10000
236	245	246	271	270	4	130.00	.47	10758.58	8606.86	.10000
237	246	247	272	271	4	130.00	.47	11157.10	8925.68	.10000
238	247	248	273	272	4	130.00	.47	11541.87	9233.50	.10000
239	248	249	274	273	4	130.00	.47	11914.22	9531.38	.10000
240	249	250	275	274	4	130.00	.47	12279.28	9820.22	.10000
241	251	252	277	276	1	125.00	.33	3275.43	2620.34	.10000
242	252	253	278	277	1	125.00	.33	3275.43	2620.34	.10000
243	253	254	279	278	1	125.00	.33	3275.43	2620.34	.10000
244	254	255	280	279	1	125.00	.47	3275.43	2620.34	.10000
245	255	256	281	280	1	125.00	.47	3275.43	2620.34	.10000
246	256	257	282	281	1	125.00	.47	3275.43	2620.34	.10000
247	257	258	283	282	1	125.00	.47	3275.43	2620.34	.10000
248	258	259	284	283	1	125.00	.47	3275.43	2620.34	.10000
249	259	260	285	284	1	125.00	.47	5822.98	4658.39	.10000
250	260	261	286	285	1	125.00	.47	5822.98	4658.39	.10000
251	261	262	287	286	1	125.00	.47	5822.98	4658.39	.10000
252	262	263	288	287	2	130.00	.47	4653.25	3722.60	.10000
253	263	264	289	288	2	130.00	.47	5610.63	4488.50	.10000
254	264	265	290	289	2	130.00	.47	5924.63	4739.70	.10000
255	265	266	291	290	2	130.00	.47	5877.10	4701.68	.10000
256	266	267	292	291	2	130.00	.47	6145.82	4916.66	.10000
257	267	268	293	292	1	130.00	.47	13625.78	10900.62	.10000
258	268	269	294	293	2	130.00	.47	13625.78	10900.62	.10000
259	269	270	295	294	4	130.00	.47	10344.71	8275.77	.10000
260	270	271	296	295	4	130.00	.47	10758.58	8606.86	.10000
261	271	272	297	296	4	130.00	.47	11157.10	8925.68	.10000
262	272	273	298	297	4	130.00	.47	11541.87	9233.50	.10000
263	273	274	299	298	4	130.00	.47	11914.22	9531.38	.10000
264	274	275	300	299	4	130.00	.47	12279.28	9820.22	.10000
265	276	277	302	301	1	125.00	.33	3275.43	2620.34	.10000
266	277	278	303	302	1	125.00	.33	3275.43	2620.34	.10000
267	278	279	304	303	1	125.00	.33	3275.43	2620.34	.10000
268	279	280	305	304	1	125.00	.47	3275.43	2620.34	.10000
269	280	281	306	305	1	125.00	.47	3275.43	2620.34	.10000
270	281	282	307	306	1	125.00	.47	3275.43	2620.34	.10000
271	282	283	308	307	1	125.00	.47	3275.43	2620.34	.10000
272	283	284	309	308	1	125.00	.47	3275.43	2620.34	.10000
273	284	285	310	309	1	125.00	.47	5822.98	4658.39	.10000
274	285	286	311	310	1	125.00	.47	5822.98	4658.39	.10000
275	286	287	312	311	1	125.00	.47	5822.98	4658.39	.10000
276	287	288	313	312	2	130.00	.47	4723.80	3779.04	.10000
277	288	289	314	313	2	130.00	.47	5684.75	4547.80	.10000
278	289	290	315	314	2	130.00	.47	5994.67	4795.90	.10000
279	290	291	316	315	2	130.00	.47	5948.28	4758.62	.10000
280	291	292	317	316	2	130.00	.47	6206.28	4965.02	.10000
281	292	293	318	317	3	130.00	.47	13625.78	10900.62	.10000
282	293	294	319	318	3	130.00	.47	13625.78	10900.62	.10000
283	294	295	320	319	4	130.00	.47	10422.48	8337.98	.10000
284	295	296	321	320	4	130.00	.47	10833.37	8666.70	.10000
285	296	297	322	321	4	130.00	.47	11229.24	8983.39	.10000
286	297	298	323	322	4	130.00	.47	11611.62	9289.30	.10000
287	298	299	324	323	4	130.00	.47	11981.88	9585.44	.10000
288	299	300	325	324	4	130.00	.47	12340.89	9872.71	.10000
289	327	326	301	305	1	125.00	.33	3275.43	2620.34	.10000
290	301	302	328	327	1	125.00	.33	3275.43	2620.34	.10000
291	302	303	329	328	1	125.00	.33	3275.43	2620.34	.10000
292	303	304	330	329	1	125.00	.33	3275.43	2620.34	.10000
293	304	305	331	330	1	125.00	.47	3275.43	2620.34	.10000
294	305	306	332	331	1	125.00	.47	3275.43	2620.34	.10000
295	306	307	333	332	1	125.00	.47	3275.43	2620.34	.10000
296	307	308	334	333	1	125.00	.47	3275.43	2620.34	.10000
297	308	309	335	334	1	125.00	.47	3275.43	2620.34	.10000
298	309	310	336	335	1	125.00	.47	5822.98	4658.39	.10000
299	310	311	337	336	1	125.00	.47	5822.98	4658.39	.10000
300	311	312	338	337	1	125.00	.47	5822.98	4658.39	.10000
301	312	313	339	338	1	130.00	.47	5026.82	4022.46	.10000
302	313	314	340	339	2	130.00	.47	6004.66	4803.72	.10000
303	314	315	341	340	2	130.00	.47	6299.05	5039.24	.10000
304	315	316	342	341	2	130.00	.47	6214.71	4971.77	.10000
305	316	317	343	342	2	130.00	.47	6469.43	5175.54	.10000
306	317	318	344	343	3	130.00	.47	13625.78	10900.62	.10000
307	318	319	345	344	3	130.00	.47	13625.78	10900.62	.10000
308	319	320	346	345	4	130.00	.47	10762.68	8610.14	.10000
309	320	321	347	346	4	130.00	.47	11161.34	8929.08	.10000
310	321	322	348	347	4	130.00	.47	11545.97	9236.78	.10000
311	322	323	349	348	4	130.00	.47	11918.19	9534.56	.10000
312	323	324	350	349	4	130.00	.47	12279.14	9823.31	.10000
313	324	325	351	350	4	130.00	.47	12628.77	10103.02	.10000
314	352	352	326	326	1	125.00	.33	3275.43	2620.34	.10000
315	326	327	354	353	1	125.00	.33	3275.43	2620.34	.10000
316	327	328	355	354	1	125.00	.33	3275.43	2620.34	.10000
317	328	329	356	355	1	125.00	.33	3275.43	2620.34	.10000
318	329	330	357	356	1	125.00	.33	3275.43	2620.34	.10000
319	330	331	358	357	1	125.00	.47	3275.43	2620.34	.10000
320	331	332	359	358	1	125.00	.47	3275.43	2620.34	.10000
321	332	333	360	359	1	125.00	.47	3275.43	2620.34	.10000
322	333	334	361	360	1	125.00	.47	3275.43	2620.34	.10000
323	334	335	362	361	1	125.00	.47	3275.43	2620.34	.10000
324	335	336	363	362	1	125.00	.47	5822.98	4658.39	.10000
325	336	337	364	363	1	125.00	.47	5822.98	4658.39	.10000
326	337	338	365	364	1	125.00	.47	5822.98	4658.39	.10000
327	338	339	366	365	2	130.00	.47	5468.04	4374.43	.10000
328	339	340	367	366	2	130.00	.47	6474.29	5179.43	.10000
329	340	341	368	367	2	130.00	.47	6748.32	5398.58	.10000
330	341	342	369	368	2	130.00	.47	6621.94	5297.55	.10000
331	342	343	370	369	2	130.00	.47	6861.55	5489.24	.10000
332	343	344	371	370	3	130.00	.47	13625.78	10900.62	.10000
333	344	345	372	371	3	130.00	.47	13625.78	10900.62	.10000
334	345	346	373	372	4	130.00	.47	11275.93	9020.75	.10000
335	346	347	374	373	4	130.00	.47	11656.78	9325.42	.10000
336	347	348	375	374	4	130.00	.47	12025.57	9620.46	.10000
337	348	349	376	375	4	130.00	.47	12383.39	9906.71	.10000
338	349	350	377	376	4	130.00	.47	12731.31	10184.92	.10000
339	350	351	378	377	4	130.00	.47	13069.46	10455.73	.10000
340	352	353	380	379	1	125.00	.33	3275.43	2620.34	.10000
341	353	354	381	380	1	125.00	.33	3275.43	2620.34	.10000
342	354	355	382	381	1	125.00	.33	3275.43	2620.34	.10000
343	355	356	383	382	1	125.00	.33	3275.43	2620.34	.10000
344	356	357	384	383	1	125.00	.33	3275.43	2620.34	.10000
345	357	358	385	384	1	125.00	.47	3275.43	2620.34	.10000
346	358	359	386	385	1	125.00	.47	3275.43	2620.34	.10000
347	359	360	387	386	1	125.00	.47	3275.43	2620.34	.10000
348	360	361	388	387	1	125.00	.47	3275.43	2620.34	.10000
349	361	362	389	388	1	125.00	.47	3275.43	2620.34	.10000
350	362	363	390	389	1	125.00	.47	5822.98	4658.39	.10000
351	363	364	391	390	1	125.00	.47	5822.98	4658.39	.10000
352	364	365	392	391	1	125.00	.47	5822.98	4658.39	.10000
353	365	366	393	392	2	130.00	.47	5477.74	4342.19	.10000
354	366	367	394	393	2	130.00	.47	6498.84	5359.08	.10000
355	367	368	395	394	2	130.00	.47	6963.95	5571.16	.10000
356	368	369	396	395	2	130.00	.47	6818.26	5454.60	.10000
357	369	370	397	396	2	130.00	.47	7051.20	5640.96	.10000
358	370	371	398	397	3	130.00	.47	13625.78	10900.62	.10000
359	371	372	399	398	3	130.00	.47	13625.78	10900.62	.10000
360	372	373	400	399	4	130.00	.47	11526.19	9220.95	.10000
361	373	374	401	400	4	130.00	.47	11899.03	9519.22	.10000
362	374	375	402	401	4	130.00	.47	12260.53	9808.43	.10000
363	375	376	403	402	4	130.00	.47	12611.68	10089.35	.10000
364	376	377	404	403	4	130.00	.47	12953.32	10362.65	.10000
365	377	378	405	404	4	130.00	.47	13286.17	10628.94	.10000
366	379	380	407	406	1	125.00	.33	3275.43	2620.34	.10000
367	380	381	408	407	1	125.00	.33	3275.43	2620.34	.10000
368	381	382	409	408	1	125.00	.33	3275.43	2620.34	.10000
369	382	383	410	409	1	125.00	.33	3275.43	2620.34	.10000
370	383	384	411	410	1	125.00	.33	3275.43	2620.34	.10000
371	384	385	412	411	1	125.00	.47	3275.43	2620.34	.10000
372	385	386	413	412	1	125.00	.47	3275.43	2620.34	.10000
373	386	387	414	413	1	125.00	.47	3275.43	2620.34	.10000
374	387	388	415	414	1	125.00	.47	3275.43	2620.34	.10000
375	388	389	416	415	1	125.00	.47	3275.43	2620.34	.10000
376	389	390	417	416	1	125.00	.47	5822.98	4658.39	.10000
377	390	391	418	417	1	125.00	.47	5822.98	4658.39	.10000
378	391	392	419	418	1	125.00	.47	5822.98	4658.39	.10000
379	392	393	420	419	2	130.00	.47	5477.74	4342.19	.10000
380	393	394	421	420	2	130.00	.47	6498.84	5359.08	.10000
381	394	395	422	421	2	130.00	.47	6963.95	5571.16	.10000
382	395	396	423	422	2	130.00	.47	6818.26	5454.60	.10000
383	396	397	424	423	2	130.00	.47	7051.20	5640.96	.10000
384	397	398	425	424	3	130.00	.47	13625.78	10900.62	.10000
385	398	399	426	425	3	130.00	.47	13625.78	10900.62	.10000
386	399	400	427	426	4	130.00	.47	11526.19	9220.95	.10000
387	400	401	428	427	4	130.00	.47	11899.03	9519.22	.10000
388	401	402	429	428	4	130.00	.47	12260.53	9808.43	.10000
389	402	403	430	429	4	130.00	.47	12611.68	10089.35	.10000
390	403	404	431	430	4	130.00	.47	12953.32	10362.65	.10000
391	404	405	432	431	4	130.00	.47	13286.17	10628.94	.10000
392	406	407	434	433	1	125.00	.33	3275.43	2620.34	.10000
393	407	408	435	434	1	125.00	.33	3275.43	2620.34	.10000
394	408	409	436	435	1	125.00	.33	3275.43	2620.34	.10000
395	409	410	437	436	1	125.00	.33	3275.43	2620.34	.10000
396	410	411	438	437	1	125.00	.33	3275.43	2620.34	.10000
397	411	412	439	438	1	125.00	.47	3275.43	2620.34	.10000
398	412	413	440	439	1	125.00	.47	3275.43	2620.34	.10000
399	413	414	441	440	1	125.00	.47	3275.43	2620.34	.10000
400	414	415	442	441	1	125.00	.47	3275.43	2620.34	.10000
401	415	416	443	442	1	125.00	.47	3275.43	2620.34	.10000
402	416	417	444	443	1	125.00	.47	5822.98	4658.39	.10000
403	417	418	445	444	1	125.00	.47	5822.98	4658.39	.10000
404	418	419	446	445	1	125.00	.47	5822.98	4658.39	.10000
405	419	420	447	446	2	130.00	.47	5477.74	4342.19	.10000
406	420	421	448	447	2	130.00	.47	6498.84	5359.08	.10000
407	421	422	449	448	2	130.00	.47	6963.95	5571.16	.10000
408	422	423	450	449	2	130.00	.47	6818.26	5454.60	.10000
409	423	424	451	450	2	130.00	.47	7051.20	5640.96	.10000
410	424	425	452	451	3	130.00	.47	13625.78	10900.62	.10000
411	425	426	453	452	3	130.00	.47	13625.78	10900.62	.10000
412	426	427	454	453	4	130.00	.47	11526.19	9220.95	.10000
413	427	428	455	454	4	130.00	.47	11899.03	9519.22	.10000
414	428	429	456	455	4	130.00	.47	12260.53	9808.43	.10000
415	429	430	457	456	4	130.00	.47	12611.68	10089.35	.10000
416	430	431	458	457	4	130.00	.47	12953.32	10362.65	.10000
417	431	432	459	458	4	130.00	.47	13286.17	10628.94	.10000
418	433	434	461	460	1	125.00	.33	3275.43	2620.34	.10000
419	434	435	462	461	1	125.00	.33	3275.43	2620.34	.10000
420	435	436	463	462	1	125.00	.33	3275.43	2620.34	.10000
421	436	437	464	463	1	125.00	.33	3275.43	2620.34	.10000
422	437	438	465	464	1	125.00	.33	3275.43	2620.34	.10000
423	438	439	466	465	1	125.00	.47	3275.43	2620.34	.10000
424	439	440	467	466	1	125.00	.47	3275.43	2620.34	.10000
425	440	441	468	467	1	125.00	.47	3275.43	2620.34	.10000
426	441	442	469	468	1	125.00	.47	3275.43	2620.34	.10000
427	442	443	470	469	1	125.00	.47	3275.43	2620.34	.10000
428	443	444	471	470	1	125.00	.47	5822.98	4658.39	.10000
429	444	445	472	471	1	125.00	.47	5822.98	4658.39	.10000
430	445	446	473	472	1	125.00	.47	5822.98	4658.39	.10000
431	446	447	474	473	2	130.00	.47	5477.74	4342.19	.10000
432	447	448	475	474	2	130.00	.47	6498.84	5359.08	.10000
433	448	449	476	475	2	130.00	.47	6963.95	5571.16	.10000
434	449	450	477	476	2	130.00	.47	6818.26	5454.60	.10000
435	450	451	478	477	2	130.00	.47	7051.20	5640.96	.10000
436	451	452	479	478	3	130.00	.47	13625.78	10900.62	.10000
437	452	453	480	479	3	130.00	.47	13625.78	10900.62	.10000
438	453	454	481	480	4	130.00	.47	11526.19	9220.95	.10000
439	454	455	482	481	4	130.00	.47	11899.03	9519.22	.10000
440	455	456	483	482	4	130.00	.47	12260.53	9808.43	.10000
441	456	457	484	483	4	130.00	.47	12611.68	10089.35	.10000
442	457	458	485	484	4	130.00	.47	12953.32	10362.65	.10000
443	458	459	486	485	4	130.00	.47	13286.17	10628.94	.10000
444	460	461	488	487	1	125.00	.33	3275.43	2620.34	.10000
445	461	462	489	488	1	125.00	.33	3275.43	2620.34	.10000
446	462	463	490	489	1	125.00	.33	3275.43	2620.34	.10000
447	463	464	491	490	1	125.00	.33	3275.43	2620.34	.10000
448	464	465	492	491	1	125.00	.33	3275.43	2620.34	.10000
449	465	466	493	492	1	125.00	.47	3275.43	2620.34	.10000
450	466	467	494	493	1	125.00	.47	3275.43	2620.34	.10000
451	467	468	495	494	1	125.00	.47	3275.43	2620.34	.10000
452	468	469	496	495	1	125.00	.47	3275.43	2620.34	.10000
453	469	470	497	496	1	125.00	.47	3275.43	2620.34	.10000
454	470	471	498	497	1	125.00	.47	5822.98	4658.39	.10000
455	471	472	499	498	1	125.00	.47	5822.98	4658.39	.10000
456	472	473	500	499	1	125.00	.47	5822.98	4658.39	.10000
457	473	474	501	500	2	130.00	.47	5477.74	4342.19	.10000
458	474	475	502	501	2	130.00	.47	6498.84	5359.08	.10000
459	475	476	503	502	2	130.00	.47	6963.95	5571.16	.10000
460	476	477	504	503	2	130.00	.47	6818.26	5454.60	.10000
461	477	478	505	504	2	130.00	.47	7051.20	5640.96	.10000
462	478	479	506	505	3	130.00	.47	13625.78	10900.62	.10000
463	479	480	507	506	3	130.00	.47	13625.78	10900.62	.10000
464	480	481	508	507	4	130.00	.47	11526.19	9220.95	.10000
465	481	482	509	508	4	130.00	.47	11899.03	9519.22	.10000
466	482	483	510	509	4	130.00	.47	12260.53	9808.43	.10000
467	483	484	511	510	4	130.00	.47	12611.68	10089.35	.10000
468	484	485	512	511	4	130.00	.47	12953.32	10362.65	.10000
469	485	486	513	512	4	130.00	.47	13286.17	10628.94	.10000
470	487	488	515	514	1	125.00	.33	3275.43	2620.34	.10000
471	488	489	516	515	1	125.00	.33	3275.43	2620.34	.10000
472	489	490	517	516	1	125.00	.33	3275.43	2620.34	.10000
473	490	491	518	517	1	125.00	.33	3275.43	2620.34	.10000
474	491	492	519	518	1	125.00	.33	3275.43	2620.34	.10000
475	492	493	520	519	1	125.00	.47	3275.43	2620.34	.10000
476	493	494	521	520	1	125.00	.47	3275.43	2620.34	.10000
477	494	495	522	521	1	125.00	.47	3275.43	2620.34	.10000
478	495	496	523	522	1	125.00	.47	3275.43	2620.34	.10000
479	496	497	524	523	1	125.00	.47	3275.43	2620.34	.10000
480	497	498	525	524	1	125.00	.47	5822.98	4658.39	.10000
481	498	499	526	525	1	125.00	.47	5822.98	4658.39	.10000
482	499	500	527	526	1	125.00	.47	5822.98	4658.39	.10000
483	500	501	528	527	2	130.00	.47	5477.74	4342.19	.10000
484	501	502	529	528	2	130.00	.47	6498.84	5359.08	.10000
485	502	503	530	529	2	130.00	.47	6963.95	5571.16	.10000
486	503	504	531	530	2	130.00	.47	6818.26	5454.60	.10000
487	504	505	532	531	2	130.00	.47	7051.20	5640.96	.10000
488	505	506	533	532	3	130.00	.47	13625.78	10900.62	.10000
489	506	507	534	533	3	130.00	.47	13625.78	10900.62	.10000
490	507	508	535	534	4	130.00	.47	11526.19	9220.95	.10000
491	508	509	536	535	4	130.00	.47	11899.03	9519.22	.10000
492	509	510	537	536	4	130.00	.47	12260.53	9808.43	.10000
493	510	511	538	537	4	130.00	.47	12611.68	10089.35	.10000
494	511	512	539	538	4	130.00	.47	12953.32	10362.65	.10000
495	512	513	540	539	4	130.00	.47	13286.17	10628.94	.10000
496	514	515	542	541	1	125.00	.33	3275.43	2620.34	.10000
497	515	516	543	542	1	125.00	.33	3275.43	2620.34	.10000
498	516	517	544	543	1	125.00	.33	3275.43	2620.34	.10000
499	517	518	545	544	1	125.00	.33	3275.43	2620.34	.10000
500	518	519	546	545	1	125.00	.33	3275.43	2620.34	.10000
501	519	520	547	546	1	125.00	.33	3275.43	2620.34	.10000
502	520	521	548	547	1	125.00	.47	3275.43	2620.34	.10000
503	521	522	549	548	1	125.00	.47	3275.43	2620.34	.10000
504	522	523	550	549	1	125.00	.47	3275.43	2620.34	.10000
505	523	524	551	550	1	125.00	.47	3275.43	2620.34	.10000
506	524	525	552	551	1	125.00	.47	3275.43	2620.34	.10000
507	525	526	553	552	1	125.00	.47	5822.98	4658.39	.10000
508	526	527	554	553	1	125.00	.47	5822.98	4658.39	.10000
509	527	528	555	554	1	125.00	.47	5822.98	4658.39	.10000
510	528	529	556	555	2	130.00	.47	5714.00	4571.20	.10000
511	529	530	557	556	2	130.00	.47	6737.79	5390.23	.10000

513	529	530	558	557	2	130.00	.47	7801.42	5601.34	.10000
514	530	531	559	558	2	130.00	.47	6852.48	5481.92	.10000
515	531	532	560	559	2	130.00	.47	7884.22	5667.38	.10000
516	532	533	561	560	3	130.00	.47	13625.78	10900.62	.10000
517	533	534	562	561	3	130.00	.47	13625.78	10900.62	.10000
518	534	535	563	562	4	130.00	.47	11369.89	9255.91	.10000
519	535	536	564	563	4	130.00	.47	11941.37	9551.99	.10000
520	536	537	565	564	4	130.00	.47	12381.63	9841.30	.10000
521	537	538	566	565	4	130.00	.47	12651.84	10121.31	.10000
522	538	539	567	566	4	130.00	.47	12992.22	10393.78	.10000
523	539	540	568	567	4	130.00	.47	13324.30	10659.28	.10000
524	541	542	570	569	1	125.00	.33	3275.43	2620.34	.10000
525	542	543	571	570	1	125.00	.33	3275.43	2620.34	.10000
526	543	544	572	571	1	125.00	.33	3275.43	2620.34	.10000
527	544	545	573	572	1	125.00	.33	3275.43	2620.34	.10000
528	545	546	574	573	1	125.00	.33	3275.43	2620.34	.10000
529	546	547	575	574	1	125.00	.33	3275.43	2620.34	.10000
530	547	548	576	575	1	125.00	.47	3275.43	2620.34	.10000
531	548	549	577	576	1	125.00	.47	3275.43	2620.34	.10000
532	549	550	578	577	1	125.00	.47	3275.43	2620.34	.10000
533	550	551	579	578	1	125.00	.47	3275.43	2620.34	.10000
534	551	552	580	579	1	125.00	.47	3275.43	2620.34	.10000
535	552	553	581	580	1	125.00	.47	5822.98	4658.39	.10000
536	553	554	582	581	1	125.00	.47	5822.98	4658.39	.10000
537	554	555	583	582	1	125.00	.47	5822.98	4658.39	.10000
538	555	556	584	583	2	130.00	.47	5793.00	4634.46	.10000
539	556	557	585	584	2	130.00	.47	5822.68	5658.14	.10000
540	557	558	586	585	2	130.00	.47	7003.15	5646.82	.10000
541	558	559	587	586	2	130.00	.47	6928.92	5541.53	.10000
542	559	560	588	587	2	130.00	.47	7154.37	5725.06	.10000
543	560	561	589	588	3	130.00	.47	13625.78	10900.62	.10000
544	561	562	590	589	3	130.00	.47	13625.78	10900.62	.10000
545	562	563	591	590	4	130.00	.47	11665.46	9332.37	.10000
546	563	564	592	591	4	130.00	.47	12033.99	9617.59	.10000
547	564	565	593	592	4	130.00	.47	12391.56	9913.25	.10000
548	565	566	594	593	4	130.00	.47	12739.38	10191.29	.10000
549	566	567	595	594	4	130.00	.47	13077.48	10461.92	.10000
550	567	568	596	595	4	130.00	.47	13407.27	10725.74	.10000
551	570	571	599	598	1	125.00	.33	3275.43	2620.34	.10000
552	571	572	600	599	1	125.00	.33	3275.43	2620.34	.10000
553	572	573	601	600	1	125.00	.33	3275.43	2620.34	.10000
554	573	574	602	601	1	125.00	.33	3275.43	2620.34	.10000
555	574	575	603	602	1	125.00	.33	3275.43	2620.34	.10000
556	575	576	604	603	1	125.00	.47	3275.43	2620.34	.10000
557	576	577	605	604	1	125.00	.47	3275.43	2620.34	.10000
558	577	578	606	605	1	125.00	.47	3275.43	2620.34	.10000
559	578	579	607	606	1	125.00	.47	3275.43	2620.34	.10000
560	579	580	608	607	1	125.00	.47	3275.43	2620.34	.10000
561	580	581	609	608	1	125.00	.47	5822.98	4658.39	.10000
562	581	582	610	609	1	125.00	.47	5822.98	4658.39	.10000
563	582	583	611	610	1	125.00	.47	5822.98	4658.39	.10000
564	583	584	612	611	2	130.00	.47	5871.86	4696.85	.10000
565	584	585	613	612	2	130.00	.47	6906.53	5525.22	.10000
566	585	586	614	613	2	130.00	.47	7143.95	5731.16	.10000
567	586	587	615	614	2	130.00	.47	7000.64	5600.51	.10000
568	587	588	616	615	2	130.00	.47	7227.71	5782.17	.10000
569	588	589	617	616	3	130.00	.47	13625.78	10900.62	.10000
570	589	590	618	617	3	130.00	.47	13625.78	10900.62	.10000
571	590	591	619	618	4	130.00	.47	11760.25	9408.20	.10000
572	591	592	620	619	4	130.00	.47	12125.80	9700.72	.10000
573	592	593	621	620	4	130.00	.47	12480.84	9984.67	.10000
574	593	594	622	621	4	130.00	.47	12825.96	10260.77	.10000
575	594	595	623	622	4	130.00	.47	13162.03	10529.62	.10000
576	595	596	624	623	4	130.00	.47	13489.73	10791.79	.10000
577	597	598	626	625	1	125.00	.33	3275.43	2620.34	.10000
578	598	599	627	626	1	125.00	.33	3275.43	2620.34	.10000
579	599	600	628	627	1	125.00	.33	3275.43	2620.34	.10000
580	600	601	629	628	1	125.00	.33	3275.43	2620.34	.10000
581	601	602	630	629	1	125.00	.33	3275.43	2620.34	.10000
582	602	603	631	630	1	125.00	.33	3275.43	2620.34	.10000
583	603	604	632	631	1	125.00	.47	3275.43	2620.34	.10000
584	604	605	633	632	1	125.00	.47	3275.43	2620.34	.10000
585	605	606	634	633	1	125.00	.47	3275.43	2620.34	.10000
586	606	607	635	634	1	125.00	.47	3275.43	2620.34	.10000
587	607	608	636	635	1	125.00	.47	3275.43	2620.34	.10000
588	608	609	637	636	1	125.00	.47	5822.98	4658.39	.10000
589	609	610	638	637	1	125.00	.47	5822.98	4658.39	.10000
590	610	611	639	638	1	125.00	.47	5822.98	4658.39	.10000
591	611	612	640	639	2	130.00	.47	5906.16	4724.93	.10000
592	612	613	641	640	2	130.00	.47	6944.38	5555.44	.10000
593	613	614	642	641	2	130.00	.47	7200.38	5760.30	.10000
594	614	615	643	642	2	130.00	.47	7033.98	5627.12	.10000
595	615	616	644	643	2	130.00	.47	7259.93	5807.94	.10000
596	616	617	645	644	3	130.00	.47	13625.78	10900.62	.10000
597	617	618	646	645	3	130.00	.47	13625.78	10900.62	.10000
598	618	619	647	646	4	130.00	.47	11803.09	9442.47	.10000
599	619	620	648	647	4	130.00	.47	12167.45	9733.96	.10000
600	620	621	649	648	4	130.00	.47	12521.21	10016.97	.10000
601	621	622	650	649	4	130.00	.47	12865.25	10292.20	.10000
602	622	623	651	650	4	130.00	.47	13200.32	10560.25	.10000
603	623	624	652	651	4	130.00	.47	13527.09	10821.67	.10000
604	625	626	654	653	1	125.00	.33	3275.43	2620.34	.10000
605	626	627	655	654	1	125.00	.33	3275.43	2620.34	.10000
606	627	628	656	655	1	125.00	.33	3275.43	2620.34	.10000
607	628	629	657	656	1	125.00	.33	3275.43	2620.34	.10000
608	629	630	658	657	1	125.00	.33	3275.43	2620.34	.10000
609	630	631	659	658	1	125.00	.47	3275.43	2620.34	.10000
610	631	632	660	659	1	125.00	.47	3275.43	2620.34	.10000
611	632	633	661	660	1	125.00	.47	3275.43	2620.34	.10000
612	633	634	662	661	1	125.00	.47	3275.43	2620.34	.10000
613	634	635	663	662	1	125.00	.47	3275.43	2620.34	.10000
614	635	636	664	663	1	125.00	.47	3275.43	2620.34	.10000
615	636	637	665	664	1	125.00	.47	5822.98	4658.39	.10000
616	637	638	666	665	1	125.00	.47	5822.98	4658.39	.10000
617	638	639	667	666	1	125.00	.47	5822.98	4658.39	.10000
618	639	640	668	667	2	130.00	.47	5906.16	4724.93	.10000
619	640	641	669	668	2	130.00	.47	6944.38	5555.44	.10000
620	641	642	670	669	2	130.00	.47	7200.38	5760.30	.10000
621	642	643	671	670	2	130.00	.47	7033.98	5627.12	.10000
622	643	644	672	671	2	130.00	.47	7259.93	5807.94	.10000
623	644	645	673	672	3	130.00	.47	13625.78	10900.62	.10000
624	645	646	674	673	3	130.00	.47	13625.78	10900.62	.10000
625	646	647	675	674	4	130.00	.47	11803.09	9442.47	.10000
626	647	648	676	675	4	130.00	.47	12167.45	9733.96	.10000
627	648	649	677	676	4	130.00	.47	12521.21	10016.97	.10000
628	649	650	678	677	4	130.00	.47	12865.25	10292.20	.10000
629	650	651	679	678	4	130.00	.47	13200.32	10560.25	.10000
630	651	652	680	679	4	130.00	.47	13527.09	10821.67	.10000
631	653	654	682	681	1	125.00	.33	3275.43	2620.34	.10000
632	654	655	683	682	1	125.00	.33	3275.43	2620.34	.10000
633	655	656	684	683	1	125.00	.33	3275.43	2620.34	.10000
634	656	657	685	684	1	125.00	.33	3275.43	2620.34	.10000
635	657	658	686	685	1	125.00	.33	3275.43	2620.34	.10000
636	658	659	687	686	1	125.00	.33	3275.43	2620.34	.10000
637	659	660	688	687	1	125.00	.47	3275.43	2620.34	.10000
638	660	661	689	688	1	125.00	.47	3275.43	2620.34	.10000
639	661	662	690	689	1	125.00	.47	3275.43	2620.34	.10000
640	662	663	691	690	1	125.00	.47	3275.43	2620.34	.10000
641	663	664	692	691	1	125.00	.47	3275.43	2620.34	.10000
642	664	665	693	692	1	125.00	.47	5822.98	4658.39	.10000
643	665	666	694	693	1	125.00	.47	5822.98	4658.39	.10000
644	666	667	695	694	1	125.00	.47	5822.98	4658.39	.10000
645	667	668	696	695	2	130.00	.47	5906.16	4724.93	.10000
646	668	669	697	696	2	130.00	.47	6944.38	5555.44	.10000
647	669	670	698	697	2	130.00	.47	7200.38	5760.30	.10000
648	670	671	699	698	2	130.00	.47	7033.98	5627.12	.10000
649	671	672	700	699	2	130.00	.47	7259.93	5807.94	.10000
650	672	673	701	700	3	130.00	.47	13625.78	10900.62	.10000
651	673	674	702	701	3	130.00	.47	13625.78	10900.62	.10000
652	674	675	703	702	4	130.00	.47	11803.09	9442.47	.10000
653	675	676	704	703	4	130.00	.47	12167.45	9733.96	.10000
654	676	677	705	704	4	130.00	.47	12521.21	10016.97	.10000
655	677	678	706	705	4	130.00	.47	12865.25	10292.20	.10000
656	678	679	707	706	4	130.00	.47	13200.32	10560.25	.10000
657	679	680	708	707	4	130.00	.47	13527.09	10821.67	.10000
658	681	682	710	709	1	125.00	.33	3275.43	2620.34	.10000
659	682	683	711	710	1	125.00	.33	3275.43	2620.34	.10000
660	683	684	712	711	1	125.00	.33	3275.43	2620.34	.10000
661	684	685	713	712	1	125.00	.33	3275.43	2620.34	.10000
662	685	686	714	713	1	125.00	.33	3275.43	2620.34	.10000
663	686	687	715	714	1	125.00	.33	3275.43	2620.34	.10000
664	687	688	716	715	1	125.00	.47	3275.43	2620.34	.10000
665	688	689	717	716	1	125.00	.47	3275.43	2620.34	.10000
666	689	690	718	717	1	125.00	.47	3275.43	2620.34	.10000
667	690	691	719	718	1	125.00	.47	3275.43	2620.34	.10000
668	691	692	720	719	1	125.00	.47	3275.43	2620.34	.10000
669	692	693	721	720	1	125.00	.47	5822.98	4658.39	.10000
670	693	694	722	721	1	125.00	.47	5822.98	4658.39	.10000
671	694	695	723	722	1	125.00	.47	5822.98	4658.39	.10000
672	695	696	724	723	2	130.00	.47	5906.16	4724.93	.10000
673	696	697	725	724	2	130.00	.47	6944.38	5555.44	.10000
674	697	698	726	725	2	130.00	.47	7200.38	5760.30	.10000
675	698	699	727	726	2	130.00	.47	7033.98	5627.12	.10000
676	699	700	728	727	2	130.00	.47	7259.93	5807.94	.10000
677	700	701	729	728	3	130.00	.47	13625.78	10900.62	.10000
678	701	702	730	729	3	130.00	.47	13625.78	10900.62	.10000
679	702	703	731	730	4	130.00	.47	11803.09	9442.47	.10000
680	703	704	732	731	4	130.00	.47	12167.45	9733.96	.10000
681	704	705	733	732	4	130.00	.47	12521.21	10016.97	.10000
682	705	706	734	733	4	130.00	.47	12865.25	10292.20	.10000
683	706	707	735	734	4	130.00	.47	13200.32	10560.25	.10000
684	707	708	736	735	4	130.00	.47	13527.09	10821.67	.10000
685	709	710	738	737	1	125.00	.33	3275.43	2620.34	.10000
686	710	711	739	738	1	125.00	.33	3275.43	2620.34	.10000
687	711	712	740	739	1	125.00	.33	3275.43	2620.34	.10000
688	712	713	741	740	1	125.00	.33	3275.43	2620.34	.10000
689	713	714	742	741	1	125.00	.33	3275.43	2620.34	.10000
690	714	715	743	742	1	125.00	.33	3275.43	2620.34	.10000
691	715	716	744	743	1	125.00	.47	3275.43	2620.34	.10000
692	716	717	745	744	1	125.00	.47	3275.43	2620.34	.10000
693	717	718	746	745	1	125.00	.47	3275.43	2620.34	.10000
694	718	719	747	746	1	125.00	.47	3275.43	2620.34	.10000
695	719	720	748	747	1	125.00	.47	3275.43	2620.34	.10000
696	720	721	749	748	1	125.00	.47	5822.98	4658.39	.10000
697	721	722	750	749	1	125.00	.47	5822.98	4658.39	.10000
698	722	723	751	750	1	125.00	.47	5822.98	4658.39	.10000
699	723	724	752	751	2	130.00	.47	5906.16	4724.93	.10000
700	724	725	753	752	2	130.00	.47	6944.38	5555.44	.10000
701	725	726	754	753	2	130.00	.47	7200.38	5760.30	.10000
702	726	727	755	754	2	130.00	.47	7033.98	5627.12	.10000
703	727	728	756	755	2	130.00	.47	7259.93	5807.94	.10000
704	728	729	757	756	3	130.00	.47	13625.78	10900.62	.10000
705	729	730	758	757	3	130.00	.47	13625.78	10900.62	.10000
706	730	731	759	758	4	130.00	.47	11803.09	9442.47	.10000
707	731	732	760	759	4	130.00	.47	12167.45	9733.96	.10000
708	732	733	761	760	4	130.00	.47	12521.21	10016.97	.10000
709	733	734	762	761	4	130.00	.47	12865.25	10292.20	.10000
710	734	735	763	762	4	130.00	.47	13200.32	10560.25	.10000
711	735	736	764	763	4	130.00	.47	13527.09	10821.67	.10000
712	737	738	766	765	1	125.00	.33	3275.43	2620.34	.10000
713	738	739	767	766	1	125.00	.33	3275.43	2620.34	.10000
714	739	740	768	767	1	125.00	.33	3275.43	2620.34	.10000
715	740	741	769	768	1	125.00	.33	3275.43	2620.34	.10000
716	741	742	770	769	1	125.00	.33	3275.43	2620.34	.10000
717	742	743	771	770	1	125.00	.33	3275.43	2620.34	.10000
718	743	744	772	771	1	125.00	.47	3275.43	2620.34	.10000
719	744	745	773	772	1	125.00	.47	3275.43	2620.34	.10000
720	745	746	774	773	1	125.00	.47	3275.43	2620.34	.10000
721	746	747	775	774	1	125.00	.47	3275.43	2620.34	.10000
722	747	748	776	775	1	125.00	.47	3275.43	2620.34	.10000
723	748	749	777	776	1	125.00	.47	5822.98	4658.39	.10000
724	749	750	778	777	1	125.00	.47	5822.98	4658.39	.10000
725	750	751	779	778	1	125.00	.47	5822.98	4658.39	.10000
726	751	752	780	779	2	130.00	.47	5906.16	4724.93	.10000
727	752	753	781	780	2	130.00	.47	6944.38	5555.44	.10000
728	753	754	782	781	2	130.00	.47	7200.38	5760.30	.10000
729	754	755	783	782	2	130.00	.47	7033.98	5627.12	.10000
730	755	756	784	783	2	130.00	.47	7259.93	5807.94	.10000
731	756	757	785	784	3	130.00	.47	13625.78	10900.62	.10000
732	757	758	786	785	3	130.00	.47	13625.78	10900.62	.10000
733	758	759	787	786	4	130.00	.47	11803.09	9442.47	.10000
734	759	760	788	787	4	130.00	.47	12167.45	9733.96	.10000
735	760	761	789	788	4	130.00	.47	12521.21	10016.97	.10000
736	761	762	790	789	4	130.00	.47	12865.25	10292.20	.10000
737	762	763	791	790	4	130.00	.47	13200.32	10560.25	.10000
738	763	764	792	791	4	130.00	.47	13527.09	10821.67	.10000
739	765	766	794	793	1	125.00	.33	3275.43	2620.34	.10000
740	766	767	795	794	1	125.00	.33	3275.43	2620.34	.10000
741	767	768	796	795	1	125.00	.33	3275.43	2620.34	.10000
742	768	769	797	796	1	125.00	.33	3275.43	2620.34	.10000
743	769	770	798	797	1	125.00	.33	3275.43	2620.34	.10000
744	770	771	799	798	1	125.00	.47	3275.43	2620.34	.10000
745	771	772	800	799	1	125.00	.47	3275.43	2620.34	.10000
746	772	773	801	800	1	125.00	.47	3275.43	2620.34	.10000
747	773	774	802	801	1	125.00	.47	3275.43	2620.34	.10000
748	774	775	803	802	1	125.00	.47	3275.43	2620.34	.10000
749	775	776	804	803	1	125.00	.47	3275.43	2620.34	.10000
750	776	777	805	804	1	125.00	.47	5822.98	4658.39	.10000
751	777	778	806	805	1	125.00	.47	5822.98	4658.39	.10000
752	778	779	807	806	1	125.00	.47	5822.98	4658.39	.10000
753	779	780	808	807	2	130.00	.47	5906.16	4724.93	.10000
754	780	781	809	808	2	130.00	.47	6944.38	5555.44	.10000
755	781	782	810	809	2	130.00	.47	7200.38	5760.30	.10000
756	782	783	811	810	2	130.00	.47	7033.98	5627.12	.10000
757	783	784	812	811	2	130.00	.47	7259.93	5807.94	.10000
758	784	785	813	812	3	130.00	.47	13625.78	10900.62	.10000
759	785	786	814	813	3	130.00	.47	13625.78	10900.62	.10000
760	786	787	815	814	4	130.00	.47	11803.09	9442.47	.10000
761	787	788	816	815	4	130.00	.47	12167.45	9733.96	.10000
762	788	789	817	816	4	130.00	.47	12521.21	10016.97	.10000
763	789	790	818	817	4	130.00	.47	12865.25	10292.20	.10000
764	790	791	819	818	4	130.00	.47	13200.32	10560.25	.10000
765	791	792	820	819	4	130.00	.47	13527.09	10821.67	.10000
766	793	794	822	821	1	125.00	.33	3275.43	2620.34	.10000
767	794	795	823	822	1	125.00	.33	3275.43	2620.34	.10000
768	795	796	824	823	1	125.00	.33	3275.43	2620.34	.10000
769	796	797	825	824	1	125.00	.33	3275.43	2620.34	.10000
770	797	798	826	825	1	125.00	.33	3275.43	2620.34	.10000
771	798	799	827	826	1	125.00	.33	3275.43	2620.34	.10000
772	799	800	828	827	1	125.00	.47	3275.43	2620.34	.10000
773	800	801	829	828	1	125.00	.47	3275.43	2620.34	.10000
774	801	802	830	829	1	125.00	.47	3275.43	2620.34	.10000
775	802	803	831	830	1	125.00	.47	3275.43	2620.34	.10000
776	803	804	832	831	1	125.00	.47	3275.43	2620.34	.10000
777	804	805	833	832	1	125.00	.47	5822.98	4658.39	.10000
778	805	806	834	833	1	125.00	.47	5822.98	4658.39	.10000
779	806	807	835	834	1	125.00	.47	5822.98	4658.39	.10000
780	807	808	836	835	2	130.00	.47	5906.16	4724.93	.10000
781	808	809	837	836	2	130.00	.47	6944.38	5555.44	.10000
782	809	810	838	837	2	130.00	.47	7200.38	5760.30	.10000
783	810	811	839	838	2	130.00	.47	7033.98	5627.12	.10000
784	811	812	840	839	2	130.00	.47	7259.93	5807.94	.10000
785	812	813	841	840	3	130.00	.47	13625.78	10900.62	.10000
786	813	814	842	841	3	130.00	.47	13625.78	10900.62	.10000
787	814	815	843	842	4	130.00	.47	11803.09	9442.47	.10000
788	815	816	844	843	4	130.00	.47	12167.45	9733.96	.10000
789	816	817	845	844	4	130.00	.47	12521.21	10016.97	.10000
790	817	818	846	845	4	130.00	.47	12865.25	10292.20	.10000
791	818	819	847	846	4	130.00	.47	13200.32	10560.25	.10000
792	819	820	848	847	4	130.00	.47	13527.09	10821.67	.10000
793	821	822	850	849	1	125.00	.33	3275.43	2620.34	.10000
794	822	823	851	850	1	125.00	.33	3275.43	2620.34	.10000
795	823	824	852	851	1	125.00	.33	3275.43	2620.34	.10000
796	824	825	853	852	1	125.00	.33	3275.43	2620.34	.10000
797	825	826	854	853	1	125.00	.33	3275.43	2620.34	.10000

798	826	827	855	854	1	125.00	.33	3275.43	2620.34	.10000
799	827	828	856	855	1	125.00	.47	3275.43	2620.34	.10000
800	828	829	857	856	1	125.00	.47	3275.43	2620.34	.10000
801	829	830	858	857	1	125.00	.47	3275.43	2620.34	.10000
802	830	831	859	858	1	125.00	.47	3275.43	2620.34	.10000
803	831	832	860	859	1	125.00	.47	3275.43	2620.34	.10000
804	832	833	861	860	1	125.00	.47	5822.98	4658.39	.10000
805	833	834	862	861	1	125.00	.47	5822.98	4658.39	.10000
806	834	835	863	862	1	125.00	.47	5822.98	4658.39	.10000
807	835	836	864	863	2	130.00	.47	5883.72	4706.98	.10000
808	836	837	865	864	2	130.00	.47	6920.15	5536.12	.10000
809	837	838	866	865	2	130.00	.47	7177.09	5741.67	.10000
810	838	839	867	866	2	130.00	.47	7012.63	5610.10	.10000
811	839	840	868	867	2	130.00	.47	7239.32	5791.46	.10000
812	840	841	869	868	3	130.00	.47	13625.78	10900.62	.10000
813	841	842	870	869	3	130.00	.47	13625.78	10900.62	.10000
814	842	843	871	870	4	130.00	.47	11775.69	9420.55	.10000
815	843	844	872	871	4	130.00	.47	12140.87	9712.70	.10000
816	844	845	873	872	4	130.00	.47	12495.39	9996.31	.10000
817	845	846	874	873	4	130.00	.47	12840.11	10272.09	.10000
818	846	847	875	874	4	130.00	.47	13175.83	10540.66	.10000
819	847	848	876	875	4	130.00	.47	13503.20	10802.56	.10000
820	849	850	878	877	1	125.00	.33	3275.43	2620.34	.10000
821	850	851	879	878	1	125.00	.33	3275.43	2620.34	.10000
822	851	852	880	879	1	125.00	.33	3275.43	2620.34	.10000
823	852	853	881	880	1	125.00	.33	3275.43	2620.34	.10000
824	853	854	882	881	1	125.00	.33	3275.43	2620.34	.10000
825	854	855	883	882	1	125.00	.33	3275.43	2620.34	.10000
826	855	856	884	883	1	125.00	.47	3275.43	2620.34	.10000
827	856	857	885	884	1	125.00	.47	3275.43	2620.34	.10000
828	857	858	886	885	1	125.00	.47	3275.43	2620.34	.10000
829	858	859	887	886	1	125.00	.47	3275.43	2620.34	.10000
830	859	860	888	887	1	125.00	.47	3275.43	2620.34	.10000
831	860	861	889	888	1	125.00	.47	5822.98	4658.39	.10000
832	861	862	890	889	1	125.00	.47	5822.98	4658.39	.10000
833	862	863	891	890	1	125.00	.47	5822.98	4658.39	.10000
834	863	864	892	891	2	130.00	.47	5838.57	4670.86	.10000
835	864	865	893	892	2	130.00	.47	6871.59	5497.27	.10000
836	865	866	894	893	2	130.00	.47	7130.27	5704.22	.10000
837	866	867	895	894	2	130.00	.47	6969.90	5575.92	.10000
838	867	868	896	895	2	130.00	.47	7197.94	5758.36	.10000
839	868	869	897	896	3	130.00	.47	13625.78	10900.62	.10000
840	869	870	898	897	3	130.00	.47	13625.78	10900.62	.10000
841	870	871	899	898	4	130.00	.47	11720.71	9376.56	.10000
842	871	872	900	899	4	130.00	.47	12087.55	9670.04	.10000
843	872	873	901	900	4	130.00	.47	12443.58	9954.86	.10000
844	873	874	902	901	4	130.00	.47	12789.71	10231.76	.10000
845	874	875	903	902	4	130.00	.47	13126.71	10501.37	.10000
846	875	876	904	903	4	130.00	.47	13455.27	10764.22	.10000
847	877	878	906	905	1	125.00	.33	3275.43	2620.34	.10000
848	878	879	907	906	1	125.00	.33	3275.43	2620.34	.10000
849	879	880	908	907	1	125.00	.33	3275.43	2620.34	.10000
850	880	881	909	908	1	125.00	.33	3275.43	2620.34	.10000
851	881	882	910	909	1	125.00	.33	3275.43	2620.34	.10000
852	882	883	911	910	1	125.00	.33	3275.43	2620.34	.10000
853	883	884	912	911	1	125.00	.47	3275.43	2620.34	.10000
854	884	885	913	912	1	125.00	.47	3275.43	2620.34	.10000
855	885	886	914	913	1	125.00	.47	3275.43	2620.34	.10000
856	886	887	915	914	1	125.00	.47	3275.43	2620.34	.10000
857	887	888	916	915	1	125.00	.47	3275.43	2620.34	.10000
858	888	889	917	916	1	125.00	.47	5822.98	4658.39	.10000
859	889	890	918	917	1	125.00	.47	5822.98	4658.39	.10000
860	890	891	919	918	1	125.00	.47	5822.98	4658.39	.10000
861	891	892	920	919	2	130.00	.47	5793.08	4634.46	.10000
862	892	893	921	920	2	130.00	.47	6822.68	5458.14	.10000
863	893	894	922	921	2	130.00	.47	7083.15	5666.52	.10000
864	894	895	923	922	2	130.00	.47	6926.92	5541.53	.10000
865	895	896	924	923	2	130.00	.47	7156.33	5725.06	.10000
866	896	897	925	924	3	130.00	.47	13625.78	10900.62	.10000
867	897	898	926	925	3	130.00	.47	13625.78	10900.62	.10000
868	898	899	927	926	4	130.00	.47	11665.46	9332.37	.10000
869	899	900	928	927	4	130.00	.47	12033.99	9627.19	.10000
870	900	901	929	928	4	130.00	.47	12391.56	9913.25	.10000
871	901	902	930	929	4	130.00	.47	12739.10	10191.28	.10000
872	902	903	931	930	4	130.00	.47	13077.40	10461.92	.10000
873	903	904	932	931	4	130.00	.47	13407.17	10725.74	.10000
874	905	906	934	933	1	125.00	.33	3275.43	2620.34	.10000
875	906	907	935	934	1	125.00	.33	3275.43	2620.34	.10000
876	907	908	936	935	1	125.00	.33	3275.43	2620.34	.10000
877	908	909	937	936	1	125.00	.33	3275.43	2620.34	.10000
878	909	910	938	937	1	125.00	.33	3275.43	2620.34	.10000
879	910	911	939	938	1	125.00	.33	3275.43	2620.34	.10000
880	911	912	940	939	1	125.00	.47	3275.43	2620.34	.10000
881	912	913	941	940	1	125.00	.47	3275.43	2620.34	.10000
882	913	914	942	941	1	125.00	.47	3275.43	2620.34	.10000
883	914	915	943	942	1	125.00	.47	3275.43	2620.34	.10000
884	915	916	944	943	1	125.00	.47	3275.43	2620.34	.10000
885	916	917	945	944	1	125.00	.47	5822.98	4658.39	.10000
886	917	918	946	945	1	125.00	.47	5822.98	4658.39	.10000
887	918	919	947	946	1	125.00	.47	5822.98	4658.39	.10000
888	919	920	948	947	2	130.00	.47	5747.22	4597.78	.10000
889	920	921	949	948	2	130.00	.47	6773.42	5418.73	.10000
890	921	922	950	949	2	130.00	.47	7035.71	5628.57	.10000
891	922	923	951	950	2	130.00	.47	6883.66	5506.93	.10000
892	923	924	952	951	2	130.00	.47	7114.46	5691.57	.10000
893	924	925	953	952	3	130.00	.47	13625.78	10900.62	.10000
894	925	926	954	953	3	130.00	.47	13625.78	10900.62	.10000
895	926	927	955	954	4	130.00	.47	11609.95	9287.96	.10000
896	927	928	956	955	4	130.00	.47	11980.18	9584.15	.10000
897	928	929	957	956	4	130.00	.47	12339.31	9871.45	.10000
898	929	930	958	957	4	130.00	.47	12688.28	10150.63	.10000
899	930	931	959	958	4	130.00	.47	13027.91	10422.33	.10000
900	931	932	960	959	4	130.00	.47	13358.90	10687.12	.10000
901	933	934	961	960	1	125.00	.33	3275.43	2620.34	.10000
902	934	935	962	961	1	125.00	.33	3275.43	2620.34	.10000
903	935	936	963	962	1	125.00	.33	3275.43	2620.34	.10000
904	936	937	964	963	1	125.00	.33	3275.43	2620.34	.10000
905	937	938	965	964	1	125.00	.33	3275.43	2620.34	.10000
906	938	939	966	965	1	125.00	.33	3275.43	2620.34	.10000
907	939	940	967	966	1	125.00	.47	3275.43	2620.34	.10000
908	940	941	968	967	1	125.00	.47	3275.43	2620.34	.10000
909	941	942	969	968	1	125.00	.47	3275.43	2620.34	.10000
910	942	943	970	969	1	125.00	.47	3275.43	2620.34	.10000
911	943	944	971	970	1	125.00	.47	3275.43	2620.34	.10000
912	944	945	972	971	1	125.00	.47	5822.98	4658.39	.10000
913	945	946	973	972	1	125.00	.47	5822.98	4658.39	.10000
914	946	947	974	973	1	125.00	.47	5822.98	4658.39	.10000
915	947	948	975	974	2	130.00	.47	5701.00	4560.80	.10000
916	948	949	976	975	2	130.00	.47	6723.79	5379.03	.10000
917	949	950	977	976	2	130.00	.47	6987.95	5590.36	.10000
918	950	951	978	977	2	130.00	.47	6840.13	5472.10	.10000
919	951	952	979	978	2	130.00	.47	7072.35	5657.88	.10000
920	952	953	980	979	3	130.00	.47	13625.78	10900.62	.10000
921	953	954	981	980	3	130.00	.47	13625.78	10900.62	.10000
922	954	955	982	981	4	130.00	.47	11554.17	9243.34	.10000
923	955	956	983	982	4	130.00	.47	11926.14	9540.91	.10000
924	956	957	984	983	4	130.00	.47	12286.85	9829.48	.10000
925	957	958	985	984	4	130.00	.47	12637.27	10109.82	.10000
926	958	959	986	985	4	130.00	.47	12978.23	10382.58	.10000
927	959	960	987	986	4	130.00	.47	13310.46	10648.37	.10000
928	961	962	988	987	1	125.00	.33	3275.43	2620.34	.10000
929	962	963	989	988	1	125.00	.33	3275.43	2620.34	.10000
930	963	964	990	989	1	125.00	.33	3275.43	2620.34	.10000
931	964	965	991	990	1	125.00	.33	3275.43	2620.34	.10000
932	965	966	992	991	1	125.00	.33	3275.43	2620.34	.10000
933	966	967	993	992	1	125.00	.47	3275.43	2620.34	.10000
934	967	968	994	993	1	125.00	.47	3275.43	2620.34	.10000
935	968	969	995	994	1	125.00	.47	3275.43	2620.34	.10000
936	969	970	996	995	1	125.00	.47	3275.43	2620.34	.10000
937	970	971	997	996	1	125.00	.47	3275.43	2620.34	.10000
938	971	972	998	997	1	125.00	.47	5822.98	4658.39	.10000
939	972	973	999	998	1	125.00	.47	5822.98	4658.39	.10000
940	973	974	1000	999	1	125.00	.47	5822.98	4658.39	.10000
941	974	975	1001	1000	2	130.00	.47	5470.05	4376.04	.10000
942	975	976	1002	1001	2	130.00	.47	6476.44	5181.15	.10000
943	976	977	1003	1002	2	130.00	.47	6750.29	5400.23	.10000
944	977	978	1004	1003	2	130.00	.47	6623.81	5299.05	.10000
945	978	979	1005	1004	2	130.00	.47	6863.36	5490.69	.10000
946	979	980	1006	1005	3	130.00	.47	13625.78	10900.62	.10000
947	980	981	1007	1006	3	130.00	.47	13625.78	10900.62	.10000
948	981	982	1008	1007	4	130.00	.47	11278.32	9022.66	.10000
949	982	983	1009	1008	4	130.00	.47	11659.09	9327.27	.10000
950	983	984	1010	1009	4	130.00	.47	12027.81	9622.25	.10000
951	984	985	1011	1010	4	130.00	.47	12385.56	9908.45	.10000
952	985	986	1012	1011	4	130.00	.47	12733.26	10186.61	.10000
953	986	987	1013	1012	4	130.00	.47	13071.72	10457.38	.10000
954	988	989	1014	1013	1	125.00	.33	3275.43	2620.34	.10000
955	989	990	1015	1014	1	125.00	.33	3275.43	2620.34	.10000
956	990	991	1016	1015	1	125.00	.33	3275.43	2620.34	.10000
957	991	992	1017	1016	1	125.00	.33	3275.43	2620.34	.10000
958	992	993	1018	1017	1	125.00	.47	3275.43	2620.34	.10000
959	993	994	1019	1018	1	125.00	.47	3275.43	2620.34	.10000
960	994	995	1020	1019	1	125.00	.47	3275.43	2620.34	.10000
961	995	996	1021	1020	1	125.00	.47	3275.43	2620.34	.10000
962	996	997	1022	1021	1	125.00	.47	3275.43	2620.34	.10000
963	997	998	1023	1022	1	125.00	.47	5822.98	4658.39	.10000
964	998	999	1024	1023	1	125.00	.47	5822.98	4658.39	.10000
965	999	1000	1025	1024	1	125.00	.47	5822.98	4658.39	.10000
966	1000	1001	1026	1025	2	130.00	.47	5029.02	4023.21	.10000
967	1001	1002	1027	1026	2	130.00	.47	6006.98	4805.58	.10000
968	1002	1003	1028	1027	2	130.00	.47	6301.26	5041.01	.10000
969	1003	1004	1029	1028	2	130.00	.47	6216.71	4973.37	.10000
970	1004	1005	1030	1029	2	130.00	.47	6471.35	5177.08	.10000
971	1005	1006	1031	1030	3	130.00	.47	13625.78	10900.62	.10000
972	1006	1007	1032	1031	3	130.00	.47	13625.78	10900.62	.10000
973	1007	1008	1033	1032	4	130.00	.47	10765.48	8612.38	.10000
974	1008	1009	1034	1033	4	130.00	.47	11163.76	8931.00	.10000
975	1009	1010	1035	1034	4	130.00	.47	11548.30	9238.64	.10000
976	1010	1011	1036	1035	4	130.00	.47	11920.45	9536.36	.10000
977	1011	1012	1037	1036	4	130.00	.47	12281.33	9825.06	.10000
978	1012	1013	1038	1037	4	130.00	.47	12631.90	10105.52	.10000
979	1014	1015	1040	1039	1	125.00	.33	3275.43	2620.34	.10000
980	1015	1016	1041	1040	1	125.00	.33	3275.43	2620.34	.10000
981	1016	1017	1042	1041	1	125.00	.33	3275.43	2620.34	.10000
982	1017	1018	1043	1042	1	125.00	.47	3275.43	2620.34	.10000
983	1018	1019	1044	1043	1	125.00	.47	3275.43	2620.34	.10000
984	1019	1020	1045	1044	1	125.00	.47	3275.43	2620.34	.10000
985	1020	1021	1046	1045	1	125.00	.47	3275.43	2620.34	.10000
986	1021	1022	1047	1046	1	125.00	.47	3275.43	2620.34	.10000
987	1022	1023	1048	1047	1	125.00	.47	5822.98	4658.39	.10000
988	1023	1024	1049	1048	1	125.00	.47	5822.98	4658.39	.10000
989	1024	1025	1050	1049	1	125.00	.47	5822.98	4658.39	.10000
990	1025	1026	1051	1050	2	130.00	.47	4793.30	3834.64	.10000
991	1026	1027	1052	1051	2	130.00	.47	5757.91	4606.33	.10000
992	1027	1028	1053	1052	2	130.00	.47	6064.29	4851.44	.10000
993	1028	1029	1054	1053	2	130.00	.47	6002.82	4802.25	.10000
994	1029	1030	1055	1054	2	130.00	.47	6266.15	5012.92	.10000
995	1030	1031	1056	1055	3	130.00	.47	13625.78	10900.62	.10000
996	1031	1032	1057	1056	3	130.00	.47	13625.78	10900.62	.10000
997	1032	1033	1058	1057	4	130.00	.47	10499.67	8399.74	.10000
998	1033	1034	1059	1058	4	130.00	.47	10907.66	8726.13	.10000
999	1034	1035	1060	1059	4	130.00	.47	11300.92	9040.74	.10000
1000	1035	1036	1061	1060	4	130.00	.47	11680.96	9344.76	.10000
1001	1036	1037	1062	1061	4	130.00	.47	12049.01	9639.21	.10000
1002	1037	1038	1063	1062	4	130.00	.47	12406.15	9924.92	.10000
1003	1039	1040	1065	1064	1	125.00	.33	3275.43	2620.34	.10000
1004	1040	1041	1066	1065	1	125.00	.33	3275.43	2620.34	.10000
1005	1041	1042	1067	1066	1	125.00	.33	3275.43	2620.34	.10000
1006	1042	1043	1068	1067	1	125.00	.47	3275.43	2620.34	.10000
1007	1043	1044	1069	1068	1	125.00	.47	3275.43	2620.34	.10000
1008	1044	1045	1070	1069	1	125.00	.47	3275.43	2620.34	.10000
1009	1045	1046	1071	1070	1	125.00	.47	3275.43	2620.34	.10000
1010	1046	1047	1072	1071	1	125.00	.47	3275.43	2620.34	.10000
1011	1047	1048	1073	1072	1	125.00	.47	5822.98	4658.39	.10000
1012	1048	1049	1074	1073	1	125.00	.47	5822.98	4658.39	.10000
1013	1049	1050	1075	1074	1	125.00	.47	5822.98	4658.39	.10000
1014	1050	1051	1076	1075	2	130.00	.47	4793.30	3834.64	.10000
1015	1051	1052	1077	1076	2	130.00	.47	5757.91	4606.33	.10000
1016	1052	1053	1078	1077	2	130.00	.47	6064.29	4851.44	.10000
1017	1053	1054	1079	1078	2	130.00	.47	6002.82	4802.25	.10000
1018	1054	1055	1080	1079	2	130.00	.47	6266.15	5012.92	.10000
1019	1055	1056	1081	1080	3	130.00	.47	13625.78	10900.62	.10000
1020	1056	1057	1082	1081	3	130.00	.47	13625.78	10900.62	.10000
1021	1057	1058	1083	1082	4	130.00	.47	10499.67	8399.74	.10000
1022	1058	1059	1084	1083	4	130.00	.47	10907.66	8726.13	.10000
1023	1059	1060	1085	1084	4	130.00	.47	11300.92	9040.74	.10000
1024	1060	1061	1086	1085	4	130.00	.47	11680.96	9344.76	.10000
1025	1061	1062	1087	1086	4	130.00	.47	12049.01	9639.21	.10000
1026	1062	1063	1088	1087	4	130.00	.47	12406.15	9924.92	.10000
1027	1064	1065	1090	1089	1	125.00	.33	3275.43	2620.34	.10000
1028	1065	1066	1091	1090	1	125.00	.33	3275.43	2620.34	.10000
1029	1066	1067	1092	1091	1	125.00	.33	3275.43	2620.34	.10000
1030	1067	1068	1093	1092	1	125.00	.47	3275.43	2620.34	.10000
1031	1068	1069	1094	1093	1	125.00	.47	3275.43	2620.34	.10000
1032	1069	1070	1095	1094	1	125.00	.47	3275.43	2620.34	.10000
1033	1070	1071	1096	1095	1	125.00	.47	3275.43	2620.34	.10000
1034	1071	1072	1097	1096	1	125.00	.47	3275.43	2620.34	.10000
1035	1072	1073	1098	1097	1	125.00	.47	5822.98	4658.39	.10000
1036	1073	1074	1099	1098	1	125.00	.47	5822.98	4658.39	.10000
1037	1074	1075	1100	1099	1	125.00	.47	5822.98	4658.39	.10000
1038	1075	1076	1101	1100	2	130.00	.47	4793.30	3834.64	.10000
1039	1076	1077	1102	1101	2	130.00	.47	5757.91	4606.33	.10000
1040	1077	1078	1103	1102	2	130.00	.47	6064.29	4851.44	.10000
1041	1078	1079	1104	1103	2	130.00	.47	6002.82	4802.25	.10000
1042	1079	1080	1105	1104	2	130.00	.47	6266.15	5012.92	.10000
1043	1080	1081	1106	1105	3	130.00	.47	13625.78	10900.62	.10000
1044	1081	1082	1107	1106	3	130.00	.47	13625.78	10900.62	.10000
1045	1082	1083	1108	1107	4	130.00	.47	10499.67	8399.74	.10000
1046	1083	1084	1109	1108	4	130.00	.47	10907.66	8726.13	.10000
1047	1084	1085	1110	1109	4	130.00	.47	11300.92	9040.74	.10000
1048	1085	1086	1111	1110	4	130.00	.47	11680.96	9344.76	.10000
1049	1086	1087	1112	1111	4	130.00	.47	12049.01	9639.21	.10000
1050	1087	1088	1113	1112	4	130.00	.47	12406.15	9924.92	.10000
1051	1089	1090	1115	1114	1	125.00	.33	3275.43	2620.34	.10000
1052	1090	1091	1116	1115	1	125.00	.33	3275.43	2620.34	.10000
1053	1091	1092	1117	1116	1	125.00	.33	3275.43	2620.34	.10000
1054	1092	1093	1118	1117	1	125.00	.47	3275.43	2620.34	.10000
1055	1093	1094	1119	1118	1	125.00	.47	3275.43	2620.34	.10000
1056	1094	1095	1120	1119	1	125.00	.47	3275.43	2620.34	.10000
1057	1095	1096	1121	1120	1	125.00	.47	3275.43	2620.34	.10000
1058	1096	1097	1122	1121	1	125.00	.47	3275.43	2620.34	.10000
1059	1097	1098	1123	1122	1	125.00	.47	5822.98	4658.39	.10000
1060	1098	1099	1124	1123	1	125.00	.47	5822.98	4658.39	.10000
1061	1099	1100	1125	1124	1	125.00	.47	5822.98	4658.39	.10000
1062	1100	1101	1126	1125	2	130.00	.47	4793.30	3834.64	.10000
1063	1101	1102	1127	1126	2	130.00	.47	5757.91	4606.33	.10000
1064	1102	1103	1128	1127	2	130.00	.47	6064.29	4851.44	.10000
1065	1103	1104	1129	1128	2	130.00	.47	6002.82	4802.25	.10000
1066	1104	1105	1130	1129	2	130.00	.47	6266.15	5012.92	.10000
1067	1105	1106	1131	1130	3	130.00	.47	13625.78	10900.62	.10000
1068	1106	1107	1132	1131	3	130.00	.47	13625.78	10900.62	.10000
1069	1107	1108	1133	1132	4	130.00	.47	10499.67	8399.74	.10000
1070	1108	1109	1134	1133	4	130.00	.47	10907.66	8726.13	.10000
1071	1109	1110	1135	1134	4	130.00	.47	11300.92	9040.74	.10000
1072	1110	1111	1136	1135	4	130.00	.47	11680.96	9344.76	.10000
1073	1111	1112	1137	1136	4	130.00	.47	12049.01	9639.21	.10000
1074	1112	1113	1138	1137	4	130.00	.47	12406.15	9924.92	.10000
1075	1114	1115	1139	1138	1	125.00	.33	3275.43	2620.34	.10000
1076	1115	1116	1140	1139	1	125.00	.33	3275.43	2620.34	.10000
1077	1116	1117	1141	1140	1	125.00	.33	3275.43	2620.34	.10000
1078	1117	1118	1142	1141	1	125.00	.47	3275.43	2620.34	.10000
1079	1118	1119	1143	1142	1	125.00	.47	3275.43	2620.34	.10000
1080	1119	1120	1144	1143	1	125.00	.47	3275.43	2620.34	.10000
1081	1120	1121	1145	1144	1	125.00	.47	3275.43	2620.34	.10000
1082	1121	1122	1146	1145	1	125.00	.47	3275.43	2620.34	.10000
1083	1122	1123	1147	1146	1	125.00	.47	5822.98	4658.39	.10000

1084	1123	1124	1148	1147	1	125.00	.47	5822.98	4658.39	.10000
1085	1124	1125	1149	1148	1	125.00	.47	5822.98	4658.39	.10000
1086	1125	1126	1150	1149	2	130.00	.47	4653.25	3722.60	.10000
1087	1126	1127	1151	1150	2	130.00	.47	5610.63	4488.50	.10000
1088	1127	1128	1152	1151	2	130.00	.47	5924.63	4739.70	.10000
1089	1128	1129	1153	1152	2	130.00	.47	5877.10	4701.68	.10000
1090	1129	1130	1154	1153	2	130.00	.47	6145.82	4916.66	.10000
1091	1130	1131	1155	1154	3	130.00	.47	13625.78	10900.62	.10000
1092	1131	1132	1156	1155	3	130.00	.47	13625.78	10900.62	.10000
1093	1132	1133	1157	1156	4	130.00	.47	10344.71	8275.77	.10000
1094	1133	1134	1158	1157	4	130.00	.47	10758.58	8606.86	.10000
1095	1134	1135	1159	1158	4	130.00	.47	11157.10	8925.68	.10000
1096	1135	1136	1160	1159	4	130.00	.47	11541.87	9233.50	.10000
1097	1136	1137	1161	1160	4	130.00	.47	11914.22	9531.38	.10000
1098	1137	1138	1162	1161	4	130.00	.47	12275.28	9820.22	.10000
1099	1139	1140	1163	1163	1	125.00	.33	3275.43	2620.34	.10000
1100	1140	1141	1164	1163	1	125.00	.33	3275.43	2620.34	.10000
1101	1141	1142	1165	1164	1	125.00	.47	3275.43	2620.34	.10000
1102	1142	1143	1166	1165	1	125.00	.47	3275.43	2620.34	.10000
1103	1143	1144	1167	1166	1	125.00	.47	3275.43	2620.34	.10000
1104	1144	1145	1168	1167	1	125.00	.47	3275.43	2620.34	.10000
1105	1145	1146	1169	1168	1	125.00	.47	3275.43	2620.34	.10000
1106	1146	1147	1170	1169	1	125.00	.47	5822.98	4658.39	.10000
1107	1147	1148	1171	1170	1	125.00	.47	5822.98	4658.39	.10000
1108	1148	1149	1172	1171	1	125.00	.47	5822.98	4658.39	.10000
1109	1149	1150	1173	1172	2	130.00	.47	4359.67	3487.74	.10000
1110	1150	1151	1174	1173	2	130.00	.47	5303.80	4243.04	.10000
1111	1151	1152	1175	1174	2	130.00	.47	5634.93	4507.94	.10000
1112	1152	1153	1176	1175	2	130.00	.47	5617.22	4493.78	.10000
1113	1153	1154	1177	1176	2	130.00	.47	5897.80	4718.24	.10000
1114	1154	1155	1178	1177	3	130.00	.47	13625.78	10900.62	.10000
1115	1155	1156	1179	1178	3	130.00	.47	13625.78	10900.62	.10000
1116	1156	1157	1180	1179	4	130.00	.47	10027.62	8022.10	.10000
1117	1157	1158	1181	1180	4	130.00	.47	10454.04	8363.24	.10000
1118	1158	1159	1182	1181	4	130.00	.47	10863.74	8690.99	.10000
1119	1159	1160	1183	1182	4	130.00	.47	11258.54	9006.83	.10000
1120	1160	1161	1184	1183	4	130.00	.47	11639.96	9311.97	.10000
1121	1161	1162	1185	1184	4	130.00	.47	12009.27	9607.41	.10000
1122	1163	1164	1186	1186	1	125.00	.33	3275.43	2620.34	.10000
1123	1164	1165	1187	1186	1	125.00	.47	3275.43	2620.34	.10000
1124	1165	1166	1188	1187	1	125.00	.47	3275.43	2620.34	.10000
1125	1166	1167	1189	1188	1	125.00	.47	3275.43	2620.34	.10000
1126	1167	1168	1190	1189	1	125.00	.47	3275.43	2620.34	.10000
1127	1168	1169	1191	1190	1	125.00	.47	3275.43	2620.34	.10000
1128	1169	1170	1192	1191	1	125.00	.47	5822.98	4658.39	.10000
1129	1170	1171	1193	1192	1	125.00	.47	5822.98	4658.39	.10000
1130	1171	1172	1194	1193	1	125.00	.47	5822.98	4658.39	.10000
1131	1172	1173	1195	1194	2	130.00	.47	3962.23	3169.78	.10000
1132	1173	1174	1196	1195	2	130.00	.47	4893.28	3914.63	.10000
1133	1174	1175	1197	1196	2	130.00	.47	5258.37	4206.29	.10000
1134	1175	1176	1198	1197	2	130.00	.47	5274.40	4219.52	.10000
1135	1176	1177	1199	1198	2	130.00	.47	5572.27	4457.81	.10000
1136	1177	1178	1200	1199	3	130.00	.47	13625.78	10900.62	.10000
1137	1178	1179	1201	1200	3	130.00	.47	13625.78	10900.62	.10000
1138	1179	1180	1202	1201	4	130.00	.47	9616.56	7693.25	.10000
1139	1180	1181	1203	1202	4	130.00	.47	10060.42	8048.34	.10000
1140	1181	1182	1204	1203	4	130.00	.47	10485.51	8388.41	.10000
1141	1182	1183	1205	1204	4	130.00	.47	10894.03	8715.22	.10000
1142	1183	1184	1206	1205	4	130.00	.47	11287.77	9030.21	.10000
1143	1184	1185	1207	1206	4	130.00	.47	11668.23	9334.58	.10000
1144	1186	1187	1208	1208	1	125.00	.47	3275.43	2620.34	.10000
1145	1187	1188	1209	1208	1	125.00	.47	3275.43	2620.34	.10000
1146	1188	1189	1210	1209	1	125.00	.47	3275.43	2620.34	.10000
1147	1189	1190	1211	1210	1	125.00	.47	3275.43	2620.34	.10000
1148	1190	1191	1212	1211	1	125.00	.47	3275.43	2620.34	.10000
1149	1191	1192	1213	1212	1	125.00	.47	5822.98	4658.39	.10000
1150	1192	1193	1214	1213	1	125.00	.47	5822.98	4658.39	.10000
1151	1193	1194	1215	1214	1	125.00	.47	5822.98	4658.39	.10000
1152	1194	1195	1216	1215	2	130.00	.47	3612.78	2890.22	.10000
1153	1195	1196	1217	1216	2	130.00	.47	4538.07	3630.45	.10000
1154	1196	1197	1218	1217	2	130.00	.47	4920.99	3936.79	.10000
1155	1197	1198	1219	1218	2	130.00	.47	4983.08	3986.46	.10000
1156	1198	1199	1220	1219	2	130.00	.47	5297.35	4237.88	.10000
1157	1199	1200	1221	1220	3	130.00	.47	13625.78	10900.62	.10000
1158	1200	1201	1222	1221	3	130.00	.47	13625.78	10900.62	.10000
1159	1201	1202	1223	1222	4	130.00	.47	9274.46	7419.57	.10000
1160	1202	1203	1224	1223	4	130.00	.47	9733.94	7787.15	.10000
1161	1203	1204	1225	1224	4	130.00	.47	10172.68	8138.14	.10000
1162	1204	1205	1226	1225	4	130.00	.47	10593.27	8474.61	.10000
1163	1205	1206	1227	1226	4	130.00	.47	10997.78	8798.22	.10000
1164	1206	1207	1228	1227	4	130.00	.47	11387.93	9110.35	.10000
1165	1208	1209	1229	1229	1	125.00	.47	3275.43	2620.34	.10000
1166	1209	1210	1230	1229	1	125.00	.47	3275.43	2620.34	.10000
1167	1210	1211	1231	1230	1	125.00	.47	3275.43	2620.34	.10000
1168	1211	1212	1232	1231	1	125.00	.47	3275.43	2620.34	.10000
1169	1212	1213	1233	1232	1	125.00	.47	5822.98	4658.39	.10000
1170	1213	1214	1234	1233	1	125.00	.47	5822.98	4658.39	.10000
1171	1214	1215	1235	1234	1	125.00	.47	5822.98	4658.39	.10000
1172	1215	1216	1236	1235	2	130.00	.47	3424.48	2739.58	.10000
1173	1216	1217	1237	1236	2	130.00	.47	4349.36	3479.49	.10000
1174	1217	1218	1238	1237	2	130.00	.47	4747.53	3798.03	.10000
1175	1218	1219	1239	1238	2	130.00	.47	4830.64	3864.51	.10000
1176	1219	1220	1240	1239	2	130.00	.47	5154.22	4123.37	.10000
1177	1220	1221	1241	1240	3	130.00	.47	13625.78	10900.62	.10000
1178	1221	1222	1242	1241	3	130.00	.47	13625.78	10900.62	.10000
1179	1222	1223	1243	1242	4	130.00	.47	9098.38	7278.70	.10000
1180	1223	1224	1244	1243	4	130.00	.47	9566.32	7653.05	.10000
1181	1224	1225	1245	1244	4	130.00	.47	10012.41	8009.93	.10000
1182	1225	1226	1246	1245	4	130.00	.47	10439.45	8351.56	.10000
1183	1226	1227	1247	1246	4	130.00	.47	10849.70	8679.76	.10000
1184	1227	1228	1248	1247	4	130.00	.47	11244.99	8995.99	.10000
1185	1229	1230	1249	1249	1	125.00	.47	3275.43	2620.34	.10000
1186	1230	1231	1250	1249	1	125.00	.47	3275.43	2620.34	.10000
1187	1231	1232	1251	1250	1	125.00	.47	3275.43	2620.34	.10000
1188	1232	1233	1252	1251	1	125.00	.47	5822.98	4658.39	.10000
1189	1233	1234	1253	1252	1	125.00	.47	5822.98	4658.39	.10000
1190	1234	1235	1254	1253	1	125.00	.47	5822.98	4658.39	.10000
1191	1235	1236	1255	1254	2	130.00	.47	3225.21	2580.17	.10000
1192	1236	1237	1256	1255	2	130.00	.47	4152.09	3321.67	.10000
1193	1237	1238	1257	1256	2	130.00	.47	4567.49	3653.99	.10000
1194	1238	1239	1258	1257	2	130.00	.47	4673.24	3738.59	.10000
1195	1239	1240	1259	1258	2	130.00	.47	5007.00	4005.60	.10000
1196	1240	1241	1260	1259	3	130.00	.47	13625.78	10900.62	.10000
1197	1241	1242	1261	1260	3	130.00	.47	13625.78	10900.62	.10000
1198	1242	1243	1262	1261	4	130.00	.47	8918.82	7135.06	.10000
1199	1243	1244	1263	1262	4	130.00	.47	9395.70	7516.56	.10000
1200	1244	1245	1264	1263	4	130.00	.47	9849.52	7879.62	.10000
1201	1245	1246	1265	1264	4	130.00	.47	10283.33	8226.67	.10000
1202	1246	1247	1266	1265	4	130.00	.47	10699.57	8559.66	.10000
1203	1247	1248	1267	1266	4	130.00	.47	11100.21	8880.17	.10000
1204	1249	1250	1268	1268	1	125.00	.47	3275.43	2620.34	.10000
1205	1250	1251	1269	1268	1	125.00	.47	3275.43	2620.34	.10000
1206	1251	1252	1270	1269	1	125.00	.47	5822.98	4658.39	.10000
1207	1252	1253	1271	1270	1	125.00	.47	5822.98	4658.39	.10000
1208	1253	1254	1272	1271	1	125.00	.47	5822.98	4658.39	.10000
1209	1254	1255	1273	1272	2	130.00	.47	3012.78	2410.22	.10000
1210	1255	1256	1274	1273	2	130.00	.47	3944.96	3155.97	.10000
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1212	1257	1258	1276	1275	2	130.00	.47	4510.35	3608.28	.10000
1213	1258	1259	1277	1276	2	130.00	.47	4855.31	3884.25	.10000
1214	1259	1260	1278	1277	3	130.00	.47	13625.78	10900.62	.10000
1215	1260	1261	1279	1278	3	130.00	.47	13625.78	10900.62	.10000
1216	1261	1262	1280	1279	4	130.00	.47	8735.57	6988.46	.10000
1217	1262	1263	1281	1280	4	130.00	.47	9221.94	7377.55	.10000
1218	1263	1264	1282	1281	4	130.00	.47	9683.90	7747.12	.10000
1219	1264	1265	1283	1282	4	130.00	.47	10124.81	8099.85	.10000
1220	1265	1266	1284	1283	4	130.00	.47	10547.31	8437.85	.10000
1221	1266	1267	1285	1284	4	130.00	.47	10953.52	8762.81	.10000
1222	1268	1269	1286	1286	1	125.00	.47	3275.43	2620.34	.10000
1223	1269	1270	1287	1286	1	125.00	.47	5822.98	4658.39	.10000
1224	1270	1271	1288	1287	1	125.00	.47	5822.98	4658.39	.10000
1225	1271	1272	1289	1288	1	125.00	.47	5822.98	4658.39	.10000
1226	1272	1273	1290	1289	2	130.00	.47	2794.19	2227.35	.10000
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1232	1278	1279	1296	1295	3	130.00	.47	13625.78	10900.62	.10000
1233	1279	1280	1297	1296	4	130.00	.47	8548.40	6838.72	.10000
1234	1280	1281	1298	1297	4	130.00	.47	9044.83	7235.86	.10000
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1236	1282	1283	1300	1299	4	130.00	.47	9963.77	7971.01	.10000
1237	1283	1284	1301	1300	4	130.00	.47	10392.81	8314.25	.10000
1238	1284	1285	1302	1301	4	130.00	.47	10804.83	8643.87	.10000
1239	1286	1287	1303	1303	1	125.00	.47	5822.98	4658.39	.10000
1240	1287	1288	1304	1303	1	125.00	.47	5822.98	4658.39	.10000
1241	1288	1289	1305	1304	1	125.00	.47	5822.98	4658.39	.10000
1242	1289	1290	1306	1305	2	130.00	.47	2535.07	2028.06	.10000
1243	1290	1291	1307	1306	2	130.00	.47	3494.07	2795.26	.10000
1244	1291	1292	1308	1307	2	130.00	.47	3978.78	3183.02	.10000
1245	1292	1293	1309	1308	2	130.00	.47	4165.50	3332.40	.10000
1246	1293	1294	1310	1309	2	130.00	.47	4536.76	3629.41	.10000
1247	1294	1295	1311	1310	3	130.00	.47	13625.78	10900.62	.10000
1248	1295	1296	1312	1311	3	130.00	.47	13625.78	10900.62	.10000
1249	1296	1297	1313	1312	4	130.00	.47	8357.03	6685.62	.10000
1250	1297	1298	1314	1313	4	130.00	.47	8864.19	7091.35	.10000
1251	1298	1299	1315	1314	4	130.00	.47	9343.86	7475.09	.10000
1252	1299	1300	1316	1315	4	130.00	.47	9800.08	7840.06	.10000
1253	1300	1301	1317	1316	4	130.00	.47	10235.99	8188.79	.10000
1254	1301	1302	1318	1317	4	130.00	.47	10654.07	8523.26	.10000
1255	1303	1304	1320	1319	1	125.00	.47	5822.98	4658.39	.10000
1256	1304	1305	1321	1320	1	125.00	.47	5822.98	4658.39	.10000
1257	1305	1306	1322	1321	2	130.00	.47	2400.84	1920.67	.10000
1258	1306	1307	1323	1322	2	130.00	.47	3371.94	2697.55	.10000
1259	1307	1308	1324	1323	2	130.00	.47	3871.96	3097.57	.10000
1260	1308	1309	1325	1324	2	130.00	.47	4074.73	3259.78	.10000
1261	1309	1310	1326	1325	2	130.00	.47	4453.57	3562.85	.10000
1262	1310	1311	1327	1326	3	130.00	.47	13625.78	10900.62	.10000
1263	1311	1312	1328	1327	3	130.00	.47	13625.78	10900.62	.10000
1264	1312	1313	1329	1328	4	130.00	.47	8259.68	6607.75	.10000
1265	1313	1314	1330	1329	4	130.00	.47	8772.47	7017.98	.10000
1266	1314	1315	1331	1330	4	130.00	.47	9256.89	7405.52	.10000
1267	1315	1316	1332	1331	4	130.00	.47	9717.20	7773.76	.10000
1268	1316	1317	1333	1332	4	130.00	.47	10156.66	8125.33	.10000
1269	1317	1318	1334	1333	4	130.00	.47	10577.89	8462.31	.10000
1270	1319	1320	1336	1335	1	125.00	.47	5822.98	4658.39	.10000
1271	1320	1321	1337	1336	1	125.00	.47	5822.98	4658.39	.10000
1272	1321	1322	1338	1337	2	130.00	.47	2400.84	1920.67	.10000
1273	1322	1323	1339	1338	2	130.00	.47	3371.94	2697.55	.10000
1274	1323	1324	1340	1339	2	130.00	.47	3871.96	3097.57	.10000
1275	1324	1325	1341	1340	2	130.00	.47	4074.73	3259.78	.10000
1276	1325	1326	1342	1341	2	130.00	.47	4453.57	3562.85	.10000
1277	1326	1327	1343	1342	3	130.00	.47	13625.78	10900.62	.10000
1278	1327	1328	1344	1343	3	130.00	.47	13625.78	10900.62	.10000
1279	1328	1329	1345	1344	4	130.00	.47	8259.68	6607.75	.10000
1280	1329	1330	1346	1345	4	130.00	.47	8772.47	7017.98	.10000
1281	1330	1331	1347	1346	4	130.00	.47	9256.89	7405.52	.10000
1282	1331	1332	1348	1347	4	130.00	.47	9717.20	7773.76	.10000
1283	1332	1333	1349	1348	4	130.00	.47	10156.66	8125.33	.10000
1284	1333	1334	1350	1349	4	130.00	.47	10577.89	8462.31	.10000
1285	1335	1336	1352	1351	1	125.00	.47	5822.98	4658.39	.10000
1286	1336	1337	1353	1352	1	125.00	.47	5822.98	4658.39	.10000
1287	1337	1338	1354	1353	2	130.00	.47	2400.84	1920.67	.10000
1288	1338	1339	1355	1354	2	130.00	.47	3371.94	2697.55	.10000
1289	1339	1340	1356	1355	2	130.00	.47	3871.96	3097.57	.10000
1290	1340	1341	1357	1356	2	130.00	.47	4074.73	3259.78	.10000
1291	1341	1342	1358	1357	2	130.00	.47	4453.57	3562.85	.10000
1292	1342	1343	1359	1358	3	130.00	.47	13625.78	10900.62	.10000
1293	1343	1344	1360	1359	3	130.00	.47	13625.78	10900.62	.10000
1294	1344	1345	1361	1360	4	130.00	.47	8259.68	6607.75	.10000
1295	1345	1346	1362	1361	4	130.00	.47	8772.47	7017.98	.10000
1296	1346	1347	1363	1362	4	130.00	.47	9256.89	7405.52	.10000
1297	1347	1348	1364	1363	4	130.00	.47	9717.20	7773.76	.10000
1298	1348	1349	1365	1364	4	130.00	.47	10156.66	8125.33	.10000
1299	1349	1350	1366	1365	4	130.00	.47	10577.89	8462.31	.10000
1300	1351	1352	1368	1367	1	125.00	.47	5822.98	4658.39	.10000
1301	1352	1353	1369	1368	1	125.00	.47	5822.98	4658.39	.10000
1302	1353	1354	1370	1369	2	130.00	.47	2400.84	1920.67	.10000
1303	1354	1355	1371	1370	2	130.00	.47	3371.94	2697.55	.10000
1304	1355	1356	1372	1371	2	130.00	.47	3871.96	3097.57	.10000
1305	1356	1357	1373	1372	2	130.00	.47	4074.73	3259.78	.10000
1306	1357	1358	1374	1373	2	130.00	.47	4453.57	3562.85	.10000
1307	1358	1359	1375	1374	3	130.00	.47	13625.78	10900.62	.10000
1308	1359	1360	1376	1375	3	130.00	.47	13625.78	10900.62	.10000
1309	1360	1361	1377	1376	4	130.00	.47	8259.68	6607.75	.10000
1310	1361	1362	1378	1377	4	130.00	.47	8772.47	7017.98	.10000
1311	1362	1363	1379	1378	4	130.00	.47	9256.89	7405.52	.10000
1312	1363	1364	1380	1379	4	130.00	.47	9717.20	7773.76	.10000
1313	1364	1365	1381	1380	4	130.00	.47	10156.66	8125.33	.10000
1314	1365	1366	1382	1381	4	130.00	.47	10577.89	8462.31	.10000
1315	1384	1383	1367	1367	1	125.00	.47	5822.98	4658.39	.10000
1316	1367	1368	1385	1384	1	125.00	.47	5822.98	4658.39	.10000
1317	1368	1369	1386	1385	1	125.00	.47	5822.98	4658.39	.10000
1318	1369	1370	1387	1386	2	130.00	.47	2535.07	2028.06	.10000
1319	1370	1371	1388	1387	2	130.00	.47	3494.07	2795.26	.10000
1320	1371	1372	1389	1388	2	130.00	.47	3978.78	3183.02	.10000
1321	1372	1373	1390	1389	2	130.00	.47	4165.50	3332.40	.10000
1322	1373	1374	1391	1390	2	130.00	.47	4536.76	3629.41	.10000
1323	1374	1375	1392	1391	3	130.00	.47	13625.78	10900.62	.10000
1324	1375	1376	1393	1392	3	130.00	.47	13625.78	10900.62	.10000
1325	1376	1377	1394	1393	4	130.00	.47	8357.03	6685.62	.10000
1326	1377	1378	1395	1394	4	130.00	.47	8864.19	7091.35	.10000
1327	1378	1379	1396	1395	4	130.00	.47	9343.86	7475.09	.10000
1328	1379	1380	1397	1396	4	130.00	.47	9800.08	7840.06	.10000
1329	1380	1381	1398	1397	4	130.00	.47	10235.99	8188.79	.10000
1330	1381	1382	1399	1398	4	130.00	.47	10654.07	8523.26	.10000
1331	1401	1400	1383	1383	1	125.00	.47	3275.43	2620.34	.10000
1332	1383	1384	1402	1401	1	125.00	.47	5822.98	4658.39	.10000
1333	1384	1385	1403	1402	1	125.00	.47	5822.98	4658.39	.10000
1334	1385	1386	1404	1403	1	125.00	.47	5822.98	4658.39	.10000
1335	1386	1387	1405	1404	2	130.00	.47	2784.19	2217.35	.10000
1336	1387	1388	1406	1405	2	130.00	.47	3726.34	2981.08	.10000
1337	1388	1389	1407	1406	2	130.00	.47	4184.23	3347.38	.10000
1338	1389	1390	1408	1407	2	130.00	.47	4341.35	3473.08	.10000
1339	1390	1391	1409	1408	2	130.00	.47	4698.74	3758.99	.10000
1340	1391	1392	1410	1409	3	130.00	.47	13625.78	10900.62	.10000
1341	1392	1393	1411	1410	3	130.00	.47	13625.78	10900.62	.10000
1342	1393	1394	1412	1411	4	130.00	.47	8548.40	6838.72	.10000
1343	1394	1395	1413	1412	4	130.00	.47	9044.83	7235.86	.10000
1344	1395	1396	1414	1413	4	130.00	.47	9515.40	7612.32	.10000
1345	1396	1397	1415	1414	4	130.00	.47	9963.77	7971.01	.10000
1346	1397	1398	1416	1415	4	130.00	.47	10392.81	8314.25	.10000
1347	1398	1399	1417	1416	4	130.00	.47	10804.83	8643.87	.10000
1348	1419	1418	1400	1400	1	125.00	.47	3275.43	2620.34	.10000
1349	1400	1401	1420	1419	1	125.00	.47	3275.43	2620.34	.10000
1350	1401	1402	1421	1420	1	125.00	.47	5822.98	4658.39	.10000
1351	1402	1403	1422	1421	1	125.00	.47	5822.98	4658.39	.10000
1352	1403	1404	1423	1422	1	125.00	.47	5822.98	4658.39	.10000
1353	1404	1405	1424	1423	2	130.00	.47	3012.78	2410.22	.10000
1354	1405	1406	1425	1424	2	130.00	.47	3944.96	3155.97	.10000
1355	1406	1407	1426	1425	2	130.00	.47	4380.05	3504.04	.10000
1356	1407	1408	1427	1426	2	130.00	.47	4510.35	3608.28	.10000
1357	1408	1409	1428	1427	2	130.00	.47	4855.31	3884.25	.10000
1358	1409	1410	1429	1428	3	130.00	.47	13625.78	10900.62	.10000
1359	1410	1411	1430	1429	3	130.00	.47	13625.78	10900.62	.10000
1360	1411	1412	1431	1430	4	130.00	.47	8735.57	6988.46	.10000
1361	1412	1413	1432	1431	4	130.00	.47	9221.94	7377.55	.10000
1362	1413	1414	1433	1432	4	130.00	.47	9683.90	7747.12	.10000
1363	1414	1415	1434	1433	4	130.00	.47	10124.81	8099.85	.10000
1364	1415	1416	1435	1434	4	130.00	.47	10547.31	8437.85	.10000
1365	1416	1417	1436	1435	4	130.00	.47	10951.52	8762.81	.10000
1366	1438	1437	1418	1418	1	125.00	.47	3275.43	2620.34	.10000
1367	1418	1419	1439	1438	1	125.00	.47	3275.43	2620.34	.10000
1368	1419	1420	1440	1439	1	125.00	.47	3275.43	2620.34	.10000
1369	1420	1421	1441	1440	1	125.00	.47	5822.98	4658.39	.10000

1370	1421	1422	1442	1441	1	125.00	.47	5822.98	4658.39	.10000
1371	1422	1423	1443	1442	1	125.00	.47	5822.98	4658.39	.10000
1372	1423	1424	1444	1443	2	130.00	.47	3225.21	2580.17	.10000
1373	1424	1425	1445	1444	2	130.00	.47	4152.09	3321.67	.10000
1374	1425	1426	1446	1445	2	130.00	.47	4567.49	3653.99	.10000
1375	1426	1427	1447	1446	2	130.00	.47	4673.24	3738.59	.10000
1376	1427	1428	1448	1447	2	130.00	.47	5007.00	4005.60	.10000
1377	1428	1429	1449	1448	3	130.00	.47	13625.78	10900.62	.10000
1378	1429	1430	1450	1449	3	130.00	.47	13625.78	10900.62	.10000
1379	1430	1431	1451	1450	4	130.00	.47	8918.82	7135.06	.10000
1380	1431	1432	1452	1451	4	130.00	.47	9395.70	7516.56	.10000
1381	1432	1433	1453	1452	4	130.00	.47	9849.52	7879.62	.10000
1382	1433	1434	1454	1453	4	130.00	.47	10283.33	8226.67	.10000
1383	1434	1435	1455	1454	4	130.00	.47	10699.57	8559.66	.10000
1384	1435	1436	1456	1455	4	130.00	.47	11100.21	8880.17	.10000
1385	1458	1457	1437	1437	1	125.00	.47	3275.43	2620.34	.10000
1386	1437	1438	1459	1458	1	125.00	.47	3275.43	2620.34	.10000
1387	1438	1439	1460	1459	1	125.00	.47	3275.43	2620.34	.10000
1388	1439	1440	1461	1460	1	125.00	.47	3275.43	2620.34	.10000
1389	1440	1441	1462	1461	1	125.00	.47	5822.98	4658.39	.10000
1390	1441	1442	1463	1462	1	125.00	.47	5822.98	4658.39	.10000
1391	1442	1443	1464	1463	1	125.00	.47	5822.98	4658.39	.10000
1392	1443	1444	1465	1464	2	130.00	.47	3424.48	2739.58	.10000
1393	1444	1445	1466	1465	2	130.00	.47	4349.36	3479.49	.10000
1394	1445	1446	1467	1466	2	130.00	.47	4747.53	3798.03	.10000
1395	1446	1447	1468	1467	2	130.00	.47	4830.64	3864.51	.10000
1396	1447	1448	1469	1468	2	130.00	.47	5154.22	4123.37	.10000
1397	1448	1449	1470	1469	3	130.00	.47	13625.78	10900.62	.10000
1398	1449	1450	1471	1470	3	130.00	.47	13625.78	10900.62	.10000
1399	1450	1451	1472	1471	4	130.00	.47	9098.38	7278.70	.10000
1400	1451	1452	1473	1472	4	130.00	.47	9566.32	7653.05	.10000
1401	1452	1453	1474	1473	4	130.00	.47	10012.41	8009.92	.10000
1402	1453	1454	1475	1474	4	130.00	.47	10439.45	8351.56	.10000
1403	1454	1455	1476	1475	4	130.00	.47	10849.70	8679.76	.10000
1404	1455	1456	1477	1476	4	130.00	.47	11244.99	8995.99	.10000
1405	1479	1478	1457	1457	1	125.00	.47	3275.43	2620.34	.10000
1406	1457	1458	1480	1479	1	125.00	.47	3275.43	2620.34	.10000
1407	1458	1459	1481	1480	1	125.00	.47	3275.43	2620.34	.10000
1408	1459	1460	1482	1481	1	125.00	.47	3275.43	2620.34	.10000
1409	1460	1461	1483	1482	1	125.00	.47	3275.43	2620.34	.10000
1410	1461	1462	1484	1483	1	125.00	.47	5822.98	4658.39	.10000
1411	1462	1463	1485	1484	1	125.00	.47	5822.98	4658.39	.10000
1412	1463	1464	1486	1485	1	125.00	.47	5822.98	4658.39	.10000
1413	1464	1465	1487	1486	2	130.00	.47	3612.70	2890.23	.10000
1414	1465	1466	1488	1487	2	130.00	.47	4538.07	3630.45	.10000
1415	1466	1467	1489	1488	2	130.00	.47	4920.99	3936.79	.10000
1416	1467	1468	1490	1489	2	130.00	.47	4983.08	3986.46	.10000
1417	1468	1469	1491	1490	2	130.00	.47	5297.35	4237.88	.10000
1418	1469	1470	1492	1491	3	130.00	.47	13625.78	10900.62	.10000
1419	1470	1471	1493	1492	3	130.00	.47	13625.78	10900.62	.10000
1420	1471	1472	1494	1493	4	130.00	.47	9274.46	7419.57	.10000
1421	1472	1473	1495	1494	4	130.00	.47	9733.94	7787.15	.10000
1422	1473	1474	1496	1495	4	130.00	.47	10172.68	8138.14	.10000
1423	1474	1475	1497	1496	4	130.00	.47	10593.27	8474.61	.10000
1424	1475	1476	1498	1497	4	130.00	.47	10997.78	8798.22	.10000
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1426	1501	1500	1478	1478	1	125.00	.33	3275.43	2620.34	.10000
1427	1478	1479	1502	1501	1	125.00	.47	3275.43	2620.34	.10000
1428	1479	1480	1503	1502	1	125.00	.47	3275.43	2620.34	.10000
1429	1480	1481	1504	1503	1	125.00	.47	3275.43	2620.34	.10000
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1431	1482	1483	1506	1505	1	125.00	.47	3275.43	2620.34	.10000
1432	1483	1484	1507	1506	1	125.00	.47	5822.98	4658.39	.10000
1433	1484	1485	1508	1507	1	125.00	.47	5822.98	4658.39	.10000
1434	1485	1486	1509	1508	1	125.00	.47	5822.98	4658.39	.10000
1435	1486	1487	1510	1509	2	130.00	.47	3962.23	3169.78	.10000
1436	1487	1488	1511	1510	2	130.00	.47	4893.28	3914.63	.10000
1437	1488	1489	1512	1511	2	130.00	.47	5250.37	4200.29	.10000
1438	1489	1490	1513	1512	2	130.00	.47	5274.40	4219.52	.10000
1439	1490	1491	1514	1513	2	130.00	.47	5572.27	4457.81	.10000
1440	1491	1492	1515	1514	3	130.00	.47	13625.78	10900.62	.10000
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1442	1493	1494	1517	1516	4	130.00	.47	9616.56	7693.25	.10000
1443	1494	1495	1518	1517	4	130.00	.47	10060.42	8048.34	.10000
1444	1495	1496	1519	1518	4	130.00	.47	10485.51	8388.41	.10000
1445	1496	1497	1520	1519	4	130.00	.47	10894.03	8715.22	.10000
1446	1497	1498	1521	1520	4	130.00	.47	11287.77	9030.21	.10000
1447	1498	1499	1522	1521	4	130.00	.47	11668.23	9334.58	.10000
1448	1524	1523	1500	1500	1	125.00	.33	3275.43	2620.34	.10000
1449	1500	1501	1525	1524	1	125.00	.33	3275.43	2620.34	.10000
1450	1501	1502	1526	1525	1	125.00	.47	3275.43	2620.34	.10000
1451	1502	1503	1527	1526	1	125.00	.47	3275.43	2620.34	.10000
1452	1503	1504	1528	1527	1	125.00	.47	3275.43	2620.34	.10000
1453	1504	1505	1529	1528	1	125.00	.47	3275.43	2620.34	.10000
1454	1505	1506	1530	1529	1	125.00	.47	3275.43	2620.34	.10000
1455	1506	1507	1531	1530	1	125.00	.47	5822.98	4658.39	.10000
1456	1507	1508	1532	1531	1	125.00	.47	5822.98	4658.39	.10000
1457	1508	1509	1533	1532	1	125.00	.47	5822.98	4658.39	.10000
1458	1509	1510	1534	1533	2	130.00	.47	4359.67	3487.74	.10000
1459	1510	1511	1535	1534	2	130.00	.47	5303.80	4243.04	.10000
1460	1511	1512	1536	1535	2	130.00	.47	5634.93	4507.94	.10000
1461	1512	1513	1537	1536	2	130.00	.47	5617.22	4493.78	.10000
1462	1513	1514	1538	1537	2	130.00	.47	5897.80	4718.24	.10000
1463	1514	1515	1539	1538	3	130.00	.47	13625.78	10900.62	.10000
1464	1515	1516	1540	1539	3	130.00	.47	13625.78	10900.62	.10000
1465	1516	1517	1541	1540	4	130.00	.47	10027.62	8022.10	.10000
1466	1517	1518	1542	1541	4	130.00	.47	10454.04	8363.24	.10000
1467	1518	1519	1543	1542	4	130.00	.47	10863.74	8690.99	.10000
1468	1519	1520	1544	1543	4	130.00	.47	11258.54	9006.83	.10000
1469	1520	1521	1545	1544	4	130.00	.47	11639.96	9311.97	.10000
1470	1521	1522	1546	1545	4	130.00	.47	12009.27	9607.41	.10000
1471	1548	1547	1523	1523	1	125.00	.33	3275.43	2620.34	.10000
1472	1523	1524	1549	1548	1	125.00	.33	3275.43	2620.34	.10000
1473	1524	1525	1550	1549	1	125.00	.33	3275.43	2620.34	.10000
1474	1525	1526	1551	1550	1	125.00	.47	3275.43	2620.34	.10000
1475	1526	1527	1552	1551	1	125.00	.47	3275.43	2620.34	.10000
1476	1527	1528	1553	1552	1	125.00	.47	3275.43	2620.34	.10000
1477	1528	1529	1554	1553	1	125.00	.47	3275.43	2620.34	.10000
1478	1529	1530	1555	1554	1	125.00	.47	3275.43	2620.34	.10000
1479	1530	1531	1556	1555	1	125.00	.47	5822.98	4658.39	.10000
1480	1531	1532	1557	1556	1	125.00	.47	5822.98	4658.39	.10000
1481	1532	1533	1558	1557	1	125.00	.47	5822.98	4658.39	.10000
1482	1533	1534	1559	1558	2	130.00	.47	4653.25	3722.60	.10000
1483	1534	1535	1560	1559	2	130.00	.47	5610.63	4488.50	.10000
1484	1535	1536	1561	1560	2	130.00	.47	5924.63	4739.70	.10000
1485	1536	1537	1562	1561	2	130.00	.47	5877.10	4701.68	.10000
1486	1537	1538	1563	1562	2	130.00	.47	6145.83	4916.66	.10000
1487	1538	1539	1564	1563	3	130.00	.47	13625.78	10900.62	.10000
1488	1539	1540	1565	1564	3	130.00	.47	13625.78	10900.62	.10000
1489	1540	1541	1566	1565	4	130.00	.47	10344.71	8275.77	.10000
1490	1541	1542	1567	1566	4	130.00	.47	10758.58	8606.86	.10000
1491	1542	1543	1568	1567	4	130.00	.47	11157.10	8925.68	.10000
1492	1543	1544	1569	1568	4	130.00	.47	11541.87	9233.50	.10000
1493	1544	1545	1570	1569	4	130.00	.47	11914.22	9531.38	.10000
1494	1545	1546	1571	1570	4	130.00	.47	12275.28	9820.22	.10000
1495	1547	1548	1573	1572	1	125.00	.33	3275.43	2620.34	.10000
1496	1548	1549	1574	1573	1	125.00	.33	3275.43	2620.34	.10000
1497	1549	1550	1575	1574	1	125.00	.33	3275.43	2620.34	.10000
1498	1550	1551	1576	1575	1	125.00	.47	3275.43	2620.34	.10000
1499	1551	1552	1577	1576	1	125.00	.47	3275.43	2620.34	.10000
1500	1552	1553	1578	1577	1	125.00	.47	3275.43	2620.34	.10000
1501	1553	1554	1579	1578	1	125.00	.47	3275.43	2620.34	.10000
1502	1554	1555	1580	1579	1	125.00	.47	3275.43	2620.34	.10000
1503	1555	1556	1581	1580	1	125.00	.47	5822.98	4658.39	.10000
1504	1556	1557	1582	1581	1	125.00	.47	5822.98	4658.39	.10000
1505	1557	1558	1583	1582	1	125.00	.47	5822.98	4658.39	.10000
1506	1558	1559	1584	1583	2	130.00	.47	4793.30	3834.64	.10000
1507	1559	1560	1585	1584	2	130.00	.47	5757.91	4606.33	.10000
1508	1560	1561	1586	1585	2	130.00	.47	6064.29	4851.44	.10000
1509	1561	1562	1587	1586	2	130.00	.47	6002.82	4802.25	.10000
1510	1562	1563	1588	1587	2	130.00	.47	6266.15	5012.92	.10000
1511	1563	1564	1589	1588	3	130.00	.47	13625.78	10900.62	.10000
1512	1564	1565	1590	1589	3	130.00	.47	13625.78	10900.62	.10000
1513	1565	1566	1591	1590	4	130.00	.47	10499.67	8399.74	.10000
1514	1566	1567	1592	1591	4	130.00	.47	10907.66	8726.13	.10000
1515	1567	1568	1593	1592	4	130.00	.47	11300.92	9040.74	.10000
1516	1568	1569	1594	1593	4	130.00	.47	11680.96	9344.76	.10000
1517	1569	1570	1595	1594	4	130.00	.47	12049.01	9639.21	.10000
1518	1570	1571	1596	1595	4	130.00	.47	12406.15	9924.92	.10000
1519	1572	1573	1598	1597	1	125.00	.33	3275.43	2620.34	.10000
1520	1573	1574	1599	1598	1	125.00	.33	3275.43	2620.34	.10000
1521	1574	1575	1600	1599	1	125.00	.33	3275.43	2620.34	.10000
1522	1575	1576	1601	1600	1	125.00	.47	3275.43	2620.34	.10000
1523	1576	1577	1602	1601	1	125.00	.47	3275.43	2620.34	.10000
1524	1577	1578	1603	1602	1	125.00	.47	3275.43	2620.34	.10000
1525	1578	1579	1604	1603	1	125.00	.47	3275.43	2620.34	.10000
1526	1579	1580	1605	1604	1	125.00	.47	3275.43	2620.34	.10000
1527	1580	1581	1606	1605	1	125.00	.47	5822.98	4658.39	.10000
1528	1581	1582	1607	1606	1	125.00	.47	5822.98	4658.39	.10000
1529	1582	1583	1608	1607	1	125.00	.47	5822.98	4658.39	.10000
1530	1583	1584	1609	1608	2	130.00	.47	4793.30	3834.64	.10000
1531	1584	1585	1610	1609	2	130.00	.47	5757.91	4606.33	.10000
1532	1585	1586	1611	1610	2	130.00	.47	6064.29	4851.44	.10000
1533	1586	1587	1612	1611	2	130.00	.47	6002.82	4802.25	.10000
1534	1587	1588	1613	1612	2	130.00	.47	6266.15	5012.92	.10000
1535	1588	1589	1614	1613	3	130.00	.47	13625.78	10900.62	.10000
1536	1589	1590	1615	1614	3	130.00	.47	13625.78	10900.62	.10000
1537	1590	1591	1616	1615	4	130.00	.47	10499.67	8399.74	.10000
1538	1591	1592	1617	1616	4	130.00	.47	10907.66	8726.13	.10000
1539	1592	1593	1618	1617	4	130.00	.47	11300.92	9040.74	.10000
1540	1593	1594	1619	1618	4	130.00	.47	11680.96	9344.76	.10000
1541	1594	1595	1620	1619	4	130.00	.47	12049.01	9639.21	.10000
1542	1595	1596	1621	1620	4	130.00	.47	12406.15	9924.92	.10000
1543	1597	1598	1623	1622	1	125.00	.33	3275.43	2620.34	.10000
1544	1598	1599	1624	1623	1	125.00	.33	3275.43	2620.34	.10000
1545	1599	1600	1625	1624	1	125.00	.33	3275.43	2620.34	.10000
1546	1600	1601	1626	1625	1	125.00	.47	3275.43	2620.34	.10000
1547	1601	1602	1627	1626	1	125.00	.47	3275.43	2620.34	.10000
1548	1602	1603	1628	1627	1	125.00	.47	3275.43	2620.34	.10000
1549	1603	1604	1629	1628	1	125.00	.47	3275.43	2620.34	.10000
1550	1604	1605	1630	1629	1	125.00	.47	3275.43	2620.34	.10000
1551	1605	1606	1631	1630	1	125.00	.47	5822.98	4658.39	.10000
1552	1606	1607	1632	1631	1	125.00	.47	5822.98	4658.39	.10000
1553	1607	1608	1633	1632	1	125.00	.47	5822.98	4658.39	.10000
1554	1608	1609	1634	1633	2	130.00	.47	4793.30	3834.64	.10000
1555	1609	1610	1635	1634	2	130.00	.47	5757.91	4606.33	.10000
1556	1610	1611	1636	1635	2	130.00	.47	6064.29	4851.44	.10000
1557	1611	1612	1637	1636	2	130.00	.47	6002.82	4802.25	.10000
1558	1612	1613	1638	1637	2	130.00	.47	6266.15	5012.92	.10000
1559	1613	1614	1639	1638	3	130.00	.47	13625.78	10900.62	.10000
1560	1614	1615	1640	1639	3	130.00	.47	13625.78	10900.62	.10000
1561	1615	1616	1641	1640	4	130.00	.47	10499.67	8399.74	.10000
1562	1616	1617	1642	1641	4	130.00	.47	10907.66	8726.13	.10000
1563	1617	1618	1643	1642	4	130.00	.47	11300.92	9040.74	.10000
1564	1618	1619	1644	1643	4	130.00	.47	11680.96	9344.76	.10000
1565	1619	1620	1645	1644	4	130.00	.47	12049.01	9639.21	.10000
1566	1620	1621	1646	1645	4	130.00	.47	12406.15	9924.92	.10000
1567	1622	1623	1648	1647	1	125.00	.33	3275.43	2620.34	.10000
1568	1623	1624	1649	1648	1	125.00	.33	3275.43	2620.34	.10000
1569	1624	1625	1650	1649	1	125.00	.33	3275.43	2620.34	.10000
1570	1625	1626	1651	1650	1	125.00	.47	3275.43	2620.34	.10000
1571	1626	1627	1652	1651	1	125.00	.47	3275.43	2620.34	.10000
1572	1627	1628	1653	1652	1	125.00	.47	3275.43	2620.34	.10000
1573	1628	1629	1654	1653	1	125.00	.47	3275.43	2620.34	.10000
1574	1629	1630	1655	1654	1	125.00	.47	3275.43	2620.34	.10000
1575	1630	1631	1656	1655	1	125.00	.47	5822.98	4658.39	.10000
1576	1631	1632	1657	1656	1	125.00	.47	5822.98	4658.39	.10000
1577	1632	1633	1658	1657	1	125.00	.47	5822.98	4658.39	.10000
1578	1633	1634	1659	1658	2	130.00	.47	4793.30	3834.64	.10000
1579	1634	1635	1660	1659	2	130.00	.47	5757.91	4606.33	.10000
1580	1635	1636	1661	1660	2	130.00	.47	6064.29	4851.44	.10000
1581	1636	1637	1662	1661	2	130.00	.47	6002.82	4802.25	.10000
1582	1637	1638	1663	1662	2	130.00	.47	6266.15	5012.92	.10000
1583	1638	1639	1664	1663	3	130.00	.47	13625.78	10900.62	.10000
1584	1639	1640	1665	1664	3	130.00	.47	13625.78	10900.62	.10000
1585	1640	1641	1666	1665	4	130.00	.47	10499.67	8399.74	.10000
1586	1641	1642	1667	1666	4	130.00	.47	10907.66	8726.13	.10000
1587	1642	1643	1668	1667	4	130.00	.47	11300.92	9040.74	.10000
1588	1643	1644	1669	1668	4	130.00	.47	11680.96	9344.76	.10000
1589	1644	1645	1670	1669	4	130.00	.47	12049.01	9639.21	.10000
1590	1645	1646	1671	1670	4	130.00	.47	12406.15	9924.92	.10000
1591	1647	1648	1672	1672	1	125.00	.33	3275.43	2620.34	.10000
1592	1648	1649	1673	1672	1	125.00	.33	3275.43	2620.34	.10000
1593	1649	1650	1674	1673	1	125.00	.33	3275.43	2620.34	.10000
1594	1650	1651	1675	1674	1	125.00	.47	3275.43	2620.34	.10000
1595	1651	1652	1676	1675	1	125.00	.47	3275.43	2620.34	.10000
1596	1652	1653	1677	1676	1	125.00	.47	3275.43	2620.34	.10000
1597	1653	1654	1678	1677	1	125.00	.47	3275.43	2620.34	.10000
1598	1654	1655	1679	1678	1	125.00	.47	3275.43	2620.34	.10000
1599	1655	1656	1680	1679	1	125.00	.47	5822.98	4658.39	.10000
1600	1656	1657	1681	1680	1	125.00	.47	5822.98	4658.39	.10000
1601	1657	1658	1682	1681	1	125.00	.47	5822.98	4658.39	.10000
1602	1658	1659	1683	1682	2	130.00	.47	4653.25	3722.60	.10000
1603	1659	1660	1684	1683	2	130.00	.47	5610.63	4488.50	.10000
1604	1660	1661	1685	1684	2	130.00	.47	5924.63	4739.70	.10000
1605	1661	1662	1686	1685	2	130.00	.47	5877.10	4701.68	.10000
1606	1662	1663	1687	1686	2	130.00	.47	6145.83	4916.66	.10000
1607	1663	1664	1688	1687	3	130.00	.47	13625.78	10900.62	.10000
1608	1664	1665	1689	1688	3	130.00	.47	13625.78	10900.62	.10000
1609	1665	1666	1690	1689	4	130.00	.47	10344.71	8275.77	.10000
1610	1666	1667	1691	1690	4	130.00	.47	10758.58	8606.86	.10000
1611	1667	1668	1692	1691	4	130.00	.47	11157.10	8925.68	.10000
1612	1668	1669	1693	1692	4	130.00	.47	11541.87	9233.50	.10000
1613	1669	1670	1694	1693	4	130.00	.47	11914.22	9531.38	.10000
1614	1670	1671	1695	1694	4	130.00	.47	12275.28	9820.22	.10000
1615	1672	1673	1696	1696	1	125.00	.33	3275.43	2620.34	.10000
1616	1673	1674	1697	1696	1	125.00	.33	3275.43	2620.34	.10000
1617	1674	1675	1698	1697	1	125.00	.47	3275.43	2620.34	.10000
1618	1675	1676	1699	1698	1	125.00	.47	3275.43	2620.34	.10000
1619	1676	1677	1700	1699	1	125.00	.47	3275.43	2620.34	.10000
1620	1677	1678	1701	1700	1	125.00	.47	3275.43	2620.34	.10000
1621	1678	1679	1702	1701	1	125.00	.47	3275.43	2620.34	.10000
1622	1679	1680	1703	1702	1	125.00	.47	5822.98	4658.39	.10000
1623	1680	1681	1704	1703	1	125.00	.47	5822.98	4658.39	.10000
1624	1681	1682	1705	1704	1	125.00	.47	5822.98	4658.39	.10000
1625	1682	1683	1706	1705	2	130.00	.47	4359.67	3487.74	.10000
1626	1683	1684	1707	1706	2	130.00	.47	5303.80	4243.04	.10000
1627	1684	1685	1708	1707	2	130.00	.47	5634.93	4507.94	.10000
1628	1685	1686	1709	1708	2	130.00	.47	5617.22	4493.78	.10000
1629	1686	1687	1710	1709	2	130.00	.47	5897.80	4718.24	.10000
1630	1687	1688	1711	1710	3	130.00	.47	13625.78	10900.62	.10000
1631	1688	1689	1712	1711	3	130.00	.47	13625.78	10900.62	.10000
1632	1689	1690	1713	1712	4	130.00	.47	10027.62	8022.10	.10000
1633	1690	1691	1714	1713	4	130.00	.47	10454.04	8363.24	.10000
1634	1691	1692	1715	1714	4	130.00	.47	10863.74	8690.99	.10000
1635	1692	1693	1716	1715	4	130.00	.47	11258.54	9006.83	.10000
1636	1693	1694	1717	1716	4	130.00	.47	11639.96	9311.97	.10000
1637	1694	1695	1718	1717	4	130.00	.47	12009.27	9607.41	.10000
1638	1696	1697	1720	1719	1	125.00	.33	3275.43	2620.34	.10000
1639	1697	1698	1721	1720	1	125.00	.47	3275.43	2620.34	.10000
1640	1698	1699	1722	1721	1	125.00	.47	3275.43	2620.34	.10000
1641	1699	1700	1723	1722	1	125.00	.47	3275.43	2620.34	.10000
1642	1700	1701	1724	1723	1	125.00	.47	3275.43	2620.34	.10000
1643	1701	1702	1725	1724	1	125.00	.47	3275.43	2620.34	.10000
1644	1702	1703	1726	1725	1	125.00	.47	5822.98	4658.39	.10000
1645	1703	1704	1727	1726	1	125.00	.47	5822.98	4658.39	.10000
1646	1704	1705	1728	1727	1	125.00	.47	5822.98	4658.39	.10000
1647	1705	1706	1729	1728	2	130.00	.47	4205.20	3364.16	.10000
1648	1706	1707	1730	1729	2	130.00	.47	5143.53	4114.82	.10000
1649	1707	1708	1731	1730	2	130.00	.47	5484.34	4387.47	.10000
1650	1708	1709	1732	1731	2	130.00	.47	5482.67	4386.13	.10000
1651	1709	1710	1733	1732	2	130.00	.47	5769.79	4615.83	.10000
1652	1710	1711	1734	1733	3	130.00	.47	13625.78	10900.62	.10000
1653	1711	1712	1735	1734	3	130.00	.47	13625.78	10900.62	.10000
1654	1712	1713	1736	1735	4	130.00	.47	9865.25	7892.20	.10000
1655	1713	1714	1737	1736	4	130.00	.47	10298.40	8238.72	.10000

1656	1714	1715	1738	1737	4	130.00	.47	10714.05	8571.24	.10000
1657	1715	1716	1739	1738	4	130.00	.47	11114.17	8891.34	.10000
1658	1716	1717	1740	1739	4	130.00	.47	11500.38	9200.30	.10000
1659	1717	1718	1741	1740	4	130.00	.47	11874.03	9499.22	.10000
1660	1719	1720	1743	1742	1	125.00	.33	3275.43	2620.34	.10000
1661	1720	1721	1744	1743	1	125.00	.47	3275.43	2620.34	.10000
1662	1721	1722	1745	1744	1	125.00	.47	3275.43	2620.34	.10000
1663	1722	1723	1746	1745	1	125.00	.47	3275.43	2620.34	.10000
1664	1723	1724	1747	1746	1	125.00	.47	3275.43	2620.34	.10000
1665	1724	1725	1748	1747	1	125.00	.47	3275.43	2620.34	.10000
1666	1725	1726	1749	1748	1	125.00	.47	5822.98	4658.39	.10000
1667	1726	1727	1750	1749	1	125.00	.47	5822.98	4658.39	.10000
1668	1727	1728	1751	1750	1	125.00	.47	5822.98	4658.39	.10000
1669	1728	1729	1752	1751	2	130.00	.47	4205.20	3364.16	.10000
1670	1729	1730	1753	1752	2	130.00	.47	5143.53	4114.82	.10000
1671	1730	1731	1754	1753	2	130.00	.47	5484.34	4387.47	.10000
1672	1731	1732	1755	1754	2	130.00	.47	5482.67	4386.13	.10000
1673	1732	1733	1756	1755	2	130.00	.47	5769.79	4615.83	.10000
1674	1733	1734	1757	1756	3	130.00	.47	13625.78	10900.62	.10000
1675	1734	1735	1758	1757	3	130.00	.47	13625.78	10900.62	.10000
1676	1735	1736	1759	1758	4	130.00	.47	9865.25	7892.20	.10000
1677	1736	1737	1760	1759	4	130.00	.47	10298.40	8238.72	.10000
1678	1737	1738	1761	1760	4	130.00	.47	10714.05	8571.24	.10000
1679	1738	1739	1762	1761	4	130.00	.47	11114.17	8891.34	.10000
1680	1739	1740	1763	1762	4	130.00	.47	11500.38	9200.30	.10000
1681	1740	1741	1764	1763	4	130.00	.47	11874.03	9499.22	.10000
1682	1742	1743	1766	1765	1	125.00	.33	3275.43	2620.34	.10000
1683	1743	1744	1767	1766	1	125.00	.47	3275.43	2620.34	.10000
1684	1744	1745	1768	1767	1	125.00	.47	3275.43	2620.34	.10000
1685	1745	1746	1769	1768	1	125.00	.47	3275.43	2620.34	.10000
1686	1746	1747	1770	1769	1	125.00	.47	3275.43	2620.34	.10000
1687	1747	1748	1771	1770	1	125.00	.47	3275.43	2620.34	.10000
1688	1748	1749	1772	1771	1	125.00	.47	5822.98	4658.39	.10000
1689	1749	1750	1773	1772	1	125.00	.47	5822.98	4658.39	.10000
1690	1750	1751	1774	1773	1	125.00	.47	5822.98	4658.39	.10000
1691	1751	1752	1775	1774	2	130.00	.47	4205.20	3364.16	.10000
1692	1752	1753	1776	1775	2	130.00	.47	5143.53	4114.82	.10000
1693	1753	1754	1777	1776	2	130.00	.47	5484.34	4387.47	.10000
1694	1754	1755	1778	1777	2	130.00	.47	5482.67	4386.13	.10000
1695	1755	1756	1779	1778	2	130.00	.47	5769.79	4615.83	.10000
1696	1756	1757	1780	1779	3	130.00	.47	13625.78	10900.62	.10000
1697	1757	1758	1781	1780	3	130.00	.47	13625.78	10900.62	.10000
1698	1758	1759	1782	1781	4	130.00	.47	9865.25	7892.20	.10000
1699	1759	1760	1783	1782	4	130.00	.47	10298.40	8238.72	.10000
1700	1760	1761	1784	1783	4	130.00	.47	10714.05	8571.24	.10000
1701	1761	1762	1785	1784	4	130.00	.47	11114.17	8891.34	.10000
1702	1762	1763	1786	1785	4	130.00	.47	11500.38	9200.30	.10000
1703	1763	1764	1787	1786	4	130.00	.47	11874.03	9499.22	.10000
1704	1765	1766	1789	1788	1	125.00	.33	3275.43	2620.34	.10000
1705	1766	1767	1790	1789	1	125.00	.47	3275.43	2620.34	.10000
1706	1767	1768	1791	1790	1	125.00	.47	3275.43	2620.34	.10000
1707	1768	1769	1792	1791	1	125.00	.47	3275.43	2620.34	.10000
1708	1769	1770	1793	1792	1	125.00	.47	3275.43	2620.34	.10000
1709	1770	1771	1794	1793	1	125.00	.47	3275.43	2620.34	.10000
1710	1771	1772	1795	1794	1	125.00	.47	5822.98	4658.39	.10000
1711	1772	1773	1796	1795	1	125.00	.47	5822.98	4658.39	.10000
1712	1773	1774	1797	1796	1	125.00	.47	5822.98	4658.39	.10000
1713	1774	1775	1798	1797	2	130.00	.47	4205.20	3364.16	.10000
1714	1775	1776	1799	1798	2	130.00	.47	5143.53	4114.82	.10000
1715	1776	1777	1800	1799	2	130.00	.47	5484.34	4387.47	.10000
1716	1777	1778	1801	1800	2	130.00	.47	5482.67	4386.13	.10000
1717	1778	1779	1802	1801	2	130.00	.47	5769.79	4615.83	.10000
1718	1779	1780	1803	1802	3	130.00	.47	13625.78	10900.62	.10000
1719	1780	1781	1804	1803	3	130.00	.47	13625.78	10900.62	.10000
1720	1781	1782	1805	1804	4	130.00	.47	9865.25	7892.20	.10000
1721	1782	1783	1806	1805	4	130.00	.47	10298.40	8238.72	.10000
1722	1783	1784	1807	1806	4	130.00	.47	10714.05	8571.24	.10000
1723	1784	1785	1808	1807	4	130.00	.47	11114.17	8891.34	.10000
1724	1785	1786	1809	1808	4	130.00	.47	11500.38	9200.30	.10000
1725	1786	1787	1810	1809	4	130.00	.47	11874.03	9499.22	.10000
1726	1788	1789	1812	1811	1	125.00	.33	3275.43	2620.34	.10000
1727	1789	1790	1813	1812	1	125.00	.47	3275.43	2620.34	.10000
1728	1790	1791	1814	1813	1	125.00	.47	3275.43	2620.34	.10000
1729	1791	1792	1815	1814	1	125.00	.47	3275.43	2620.34	.10000
1730	1792	1793	1816	1815	1	125.00	.47	3275.43	2620.34	.10000
1731	1793	1794	1817	1816	1	125.00	.47	3275.43	2620.34	.10000
1732	1794	1795	1818	1817	1	125.00	.47	5822.98	4658.39	.10000
1733	1795	1796	1819	1818	1	125.00	.47	5822.98	4658.39	.10000
1734	1796	1797	1820	1819	1	125.00	.47	5822.98	4658.39	.10000
1735	1797	1798	1821	1820	2	130.00	.47	4205.20	3364.16	.10000
1736	1798	1799	1822	1821	2	130.00	.47	5143.53	4114.82	.10000
1737	1799	1800	1823	1822	2	130.00	.47	5484.34	4387.47	.10000
1738	1800	1801	1824	1823	2	130.00	.47	5482.67	4386.13	.10000
1739	1801	1802	1825	1824	2	130.00	.47	5769.79	4615.83	.10000
1740	1802	1803	1826	1825	3	130.00	.47	13625.78	10900.62	.10000
1741	1803	1804	1827	1826	3	130.00	.47	13625.78	10900.62	.10000
1742	1804	1805	1828	1827	4	130.00	.47	9865.25	7892.20	.10000
1743	1805	1806	1829	1828	4	130.00	.47	10298.40	8238.72	.10000
1744	1806	1807	1830	1829	4	130.00	.47	10714.05	8571.24	.10000
1745	1807	1808	1831	1830	4	130.00	.47	11114.17	8891.34	.10000
1746	1808	1809	1832	1831	4	130.00	.47	11500.38	9200.30	.10000
1747	1809	1810	1833	1832	4	130.00	.47	11874.03	9499.22	.10000
1748	1811	1812	1835	1834	1	125.00	.33	3275.43	2620.34	.10000
1749	1812	1813	1836	1835	1	125.00	.47	3275.43	2620.34	.10000
1750	1813	1814	1837	1836	1	125.00	.47	3275.43	2620.34	.10000
1751	1814	1815	1838	1837	1	125.00	.47	3275.43	2620.34	.10000
1752	1815	1816	1839	1838	1	125.00	.47	3275.43	2620.34	.10000
1753	1816	1817	1840	1839	1	125.00	.47	3275.43	2620.34	.10000
1754	1817	1818	1841	1840	1	125.00	.47	5822.98	4658.39	.10000
1755	1818	1819	1842	1841	1	125.00	.47	5822.98	4658.39	.10000
1756	1819	1820	1843	1842	1	125.00	.47	5822.98	4658.39	.10000
1757	1820	1821	1844	1843	2	130.00	.47	4205.20	3364.16	.10000
1758	1821	1822	1845	1844	2	130.00	.47	5143.53	4114.82	.10000
1759	1822	1823	1846	1845	2	130.00	.47	5484.34	4387.47	.10000
1760	1823	1824	1847	1846	2	130.00	.47	5482.67	4386.13	.10000
1761	1824	1825	1848	1847	2	130.00	.47	5769.79	4615.83	.10000
1762	1825	1826	1849	1848	3	130.00	.47	13625.78	10900.62	.10000
1763	1826	1827	1850	1849	3	130.00	.47	13625.78	10900.62	.10000
1764	1827	1828	1851	1850	4	130.00	.47	9865.25	7892.20	.10000
1765	1828	1829	1852	1851	4	130.00	.47	10298.40	8238.72	.10000
1766	1829	1830	1853	1852	4	130.00	.47	10714.05	8571.24	.10000
1767	1830	1831	1854	1853	4	130.00	.47	11114.17	8891.34	.10000
1768	1831	1832	1855	1854	4	130.00	.47	11500.38	9200.30	.10000
1769	1832	1833	1856	1855	4	130.00	.47	11874.03	9499.22	.10000
1770	1834	1835	1858	1857	1	125.00	.33	3275.43	2620.34	.10000
1771	1835	1836	1859	1858	1	125.00	.47	3275.43	2620.34	.10000
1772	1836	1837	1860	1859	1	125.00	.47	3275.43	2620.34	.10000
1773	1837	1838	1861	1860	1	125.00	.47	3275.43	2620.34	.10000
1774	1838	1839	1862	1861	1	125.00	.47	3275.43	2620.34	.10000
1775	1839	1840	1863	1862	1	125.00	.47	3275.43	2620.34	.10000
1776	1840	1841	1864	1863	1	125.00	.47	5822.98	4658.39	.10000
1777	1841	1842	1865	1864	1	125.00	.47	5822.98	4658.39	.10000
1778	1842	1843	1866	1865	1	125.00	.47	5822.98	4658.39	.10000
1779	1843	1844	1867	1866	2	130.00	.47	4205.20	3364.16	.10000
1780	1844	1845	1868	1867	2	130.00	.47	5143.53	4114.82	.10000
1781	1845	1846	1869	1868	2	130.00	.47	5484.34	4387.47	.10000
1782	1846	1847	1870	1869	2	130.00	.47	5482.67	4386.13	.10000
1783	1847	1848	1871	1870	2	130.00	.47	5769.79	4615.83	.10000
1784	1848	1849	1872	1871	3	130.00	.47	13625.78	10900.62	.10000
1785	1849	1850	1873	1872	3	130.00	.47	13625.78	10900.62	.10000
1786	1850	1851	1874	1873	4	130.00	.47	9865.25	7892.20	.10000
1787	1851	1852	1875	1874	4	130.00	.47	10298.40	8238.72	.10000
1788	1852	1853	1876	1875	4	130.00	.47	10714.05	8571.24	.10000
1789	1853	1854	1877	1876	4	130.00	.47	11114.17	8891.34	.10000
1790	1854	1855	1878	1877	4	130.00	.47	11500.38	9200.30	.10000
1791	1855	1856	1879	1878	4	130.00	.47	11874.03	9499.22	.10000
1792	1857	1858	1881	1880	1	125.00	.33	3275.43	2620.34	.10000
1793	1858	1859	1882	1881	1	125.00	.47	3275.43	2620.34	.10000
1794	1859	1860	1883	1882	1	125.00	.47	3275.43	2620.34	.10000
1795	1860	1861	1884	1883	1	125.00	.47	3275.43	2620.34	.10000
1796	1861	1862	1885	1884	1	125.00	.47	3275.43	2620.34	.10000
1797	1862	1863	1886	1885	1	125.00	.47	3275.43	2620.34	.10000
1798	1863	1864	1887	1886	1	125.00	.47	5822.98	4658.39	.10000
1799	1864	1865	1888	1887	1	125.00	.47	5822.98	4658.39	.10000
1800	1865	1866	1889	1888	1	125.00	.47	5822.98	4658.39	.10000
1801	1866	1867	1890	1889	2	130.00	.47	4205.20	3364.16	.10000
1802	1867	1868	1891	1890	2	130.00	.47	5143.53	4114.82	.10000
1803	1868	1869	1892	1891	2	130.00	.47	5484.34	4387.47	.10000
1804	1869	1870	1893	1892	2	130.00	.47	5482.67	4386.13	.10000
1805	1870	1871	1894	1893	2	130.00	.47	5769.79	4615.83	.10000
1806	1871	1872	1895	1894	3	130.00	.47	13625.78	10900.62	.10000
1807	1872	1873	1896	1895	3	130.00	.47	13625.78	10900.62	.10000
1808	1873	1874	1897	1896	4	130.00	.47	9865.25	7892.20	.10000
1809	1874	1875	1898	1897	4	130.00	.47	10298.40	8238.72	.10000
1810	1875	1876	1899	1898	4	130.00	.47	10714.05	8571.24	.10000
1811	1876	1877	1900	1899	4	130.00	.47	11114.17	8891.34	.10000
1812	1877	1878	1901	1900	4	130.00	.47	11500.38	9200.30	.10000
1813	1878	1879	1902	1901	4	130.00	.47	11874.03	9499.22	.10000
1814	1880	1881	1904	1903	1	125.00	.33	3275.43	2620.34	.10000
1815	1881	1882	1905	1904	1	125.00	.47	3275.43	2620.34	.10000
1816	1882	1883	1906	1905	1	125.00	.47	3275.43	2620.34	.10000
1817	1883	1884	1907	1906	1	125.00	.47	3275.43	2620.34	.10000
1818	1884	1885	1908	1907	1	125.00	.47	3275.43	2620.34	.10000
1819	1885	1886	1909	1908	1	125.00	.47	3275.43	2620.34	.10000
1820	1886	1887	1910	1909	1	125.00	.47	5822.98	4658.39	.10000
1821	1887	1888	1911	1910	1	125.00	.47	5822.98	4658.39	.10000
1822	1888	1889	1912	1911	1	125.00	.47	5822.98	4658.39	.10000
1823	1889	1890	1913	1912	2	130.00	.47	4205.20	3364.16	.10000
1824	1890	1891	1914	1913	2	130.00	.47	5143.53	4114.82	.10000
1825	1891	1892	1915	1914	2	130.00	.47	5484.34	4387.47	.10000
1826	1892	1893	1916	1915	2	130.00	.47	5482.67	4386.13	.10000
1827	1893	1894	1917	1916	2	130.00	.47	5769.79	4615.83	.10000
1828	1894	1895	1918	1917	3	130.00	.47	13625.78	10900.62	.10000
1829	1895	1896	1919	1918	3	130.00	.47	13625.78	10900.62	.10000
1830	1896	1897	1920	1919	4	130.00	.47	9865.25	7892.20	.10000
1831	1897	1898	1921	1920	4	130.00	.47	10298.40	8238.72	.10000
1832	1898	1899	1922	1921	4	130.00	.47	10714.05	8571.24	.10000
1833	1899	1900	1923	1922	4	130.00	.47	11114.17	8891.34	.10000
1834	1900	1901	1924	1923	4	130.00	.47	11500.38	9200.30	.10000
1835	1901	1902	1925	1924	4	130.00	.47	11874.03	9499.22	.10000

N	XGRD	YGRD	BC	OUT	XIIN	XIIN	XIIN	XIIV	XIIV
XIV	*** (15.2F10.0,2I5,6F10.0) ***								
1	-400.000	12.000	2						
2	-400.000	11.000	2						
3	-400.000	9.000	2						
4	-400.000	6.000	2						
5	-400.000	4.000	2						
6	-400.000	2.000	2						
7	-400.000	0.000	2						
8	-400.000	-2.000	2						
9	-400.000	-6.000	2						
10	-400.000	-6.000	2						
11	-400.000	-9.000	2						
12	-400.000	-12.000	2						
13	-400.000	-17.000	2						
14	-400.000	-21.000	2						
15	-400.000	-25.000	2						
16	-400.000	-29.000	2						
17	-400.000	-33.000	2						
18	-400.000	-38.000	2						
19	-400.000	-43.000	2						
20	-400.000	-48.000	2						
21	-400.000	-53.000	2						
22	-400.000	-58.000	2						
23	-400.000	-63.000	2						
24	-400.000	-68.000	2						
25	-400.000	-73.000	4						
26	-390.000	12.000							
27	-390.000	11.000							
28	-390.000	9.000							
29	-390.000	6.000							
30	-390.000	4.000							
31	-390.000	2.000							
32	-390.000	0.000							
33	-390.000	-2.000							
34	-390.000	-6.000							
35	-390.000	-6.000							
36	-390.000	-9.000							
37	-390.000	-12.000							
38	-390.000	-17.000							
39	-390.000	-21.000							
40	-390.000	-25.000							
41	-390.000	-29.000							
42	-390.000	-33.000							
43	-390.000	-38.000							
44	-390.000	-43.000							
45	-390.000	-48.000							
46	-390.000	-53.000							
47	-390.000	-58.000							
48	-390.000	-63.000							
49	-390.000	-68.000							
50	-390.000	-73.000	4						
51	-380.000	12.000		1					
52	-380.000	11.000							
53	-380.000	9.000							
54	-380.000	6.000							
55	-380.000	4.000							
56	-380.000	2.000							
57	-380.000	0.000							
58	-380.000	-2.000							
59	-380.000	-6.000							
60	-380.000	-6.000							
61	-380.000	-9.000							
62	-380.000	-12.000							
63	-380.000	-17.000							
64	-380.000	-21.000							
65	-380.000	-25.000							
66	-380.000	-29.000							
67	-380.000	-33.000							
68	-380.000	-38.000							
69	-380.000	-43.000							
70	-380.000	-48.000							
71	-380.000	-53.000							
72	-380.000	-58.000							
73	-380.000	-63.000							
74	-380.000	-68.000							
75	-380.000	-73.000	4						
76	-370.000	12.000		1					
77	-370.000	11.000							
78	-370.000	9.000							
79	-370.000	6.000							
80	-370.000	4.000							
81	-370.000	2.000							
82	-370.000	0.000							
83	-370.000	-2.000							
84	-370.000	-6.000							
85	-370.000	-6.000							
86	-370.000	-9.000							
87	-370.000	-12.000							
88	-370.000	-17.000							
89	-370.000	-21.000							
90	-370.000	-25.000							
91	-370.000	-29.000							
92	-370.000	-33.000							
93	-370.000	-38.000							
94	-370.000	-43.000							
95	-370.000	-48.000							
96	-370.000	-53.000							
97	-370.000	-58.000							
98	-370.000	-63.000							
99	-370.000	-68.000							
100	-370.000	-73.000	4						
101	-360.000	12.000		1					
102	-360.000	11.000							
103	-360.000	9.000							
104	-360.000	6.000							

105	-340.000	4.000	
106	-340.000	2.000	
107	-340.000	0.000	
108	-340.000	-2.000	
109	-340.000	-4.000	
110	-340.000	-6.000	
111	-340.000	-9.000	
112	-340.000	-12.000	
113	-340.000	-17.000	
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123	-340.000	-63.000	
124	-340.000	-68.000	
125	-340.000	-73.000	◂
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484	-262.000	-63.000	
485	-262.000	-68.000	
486	-262.000	-73.000	◂
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540	-251.000	-73.000	◂
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596	-240.000	-73.000	◂
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624	-235.000	-73.000	◂
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652	-230.000	-73.000	◂
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707	-220.000	-68.000	
708	-220.000	-73.000	◂
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711	-215.000	16.500	
712	-215.000	13.000	
713	-215.000	11.000	
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734	-215.000	-63.000	
735	-215.000	-68.000	
736	-215.000	-73.000	◂
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763	-210.000	-68.000	
764	-210.000	-73.000	◂
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792	-205.000	-73.000	◂
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1824	10.000	-29.000	
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1826	10.000	-38.000	
1827	10.000	-43.000	
1828	10.000	-48.000	
1829	10.000	-53.000	
1830	10.000	-58.000	
1831	10.000	-63.000	
1832	10.000	-68.000	
1833	10.000	-73.000	4
1834	20.000	9.000	
1835	20.000	6.000	
1836	20.000	4.000	
1837	20.000	2.000	
1838	20.000	0.000	
1839	20.000	-2.000	
1840	20.000	-4.000	
1841	20.000	-6.000	
1842	20.000	-9.000	
1843	20.000	-12.000	
1844	20.000	-17.000	
1845	20.000	-21.000	
1846	20.000	-25.000	
1847	20.000	-29.000	
1848	20.000	-33.000	
1849	20.000	-38.000	
1850	20.000	-43.000	
1851	20.000	-48.000	
1852	20.000	-53.000	
1853	20.000	-58.000	
1854	20.000	-63.000	
1855	20.000	-68.000	
1856	20.000	-73.000	4
1857	30.000	9.000	
1858	30.000	6.000	
1859	30.000	4.000	
1860	30.000	2.000	
1861	30.000	0.000	
1862	30.000	-2.000	
1863	30.000	-4.000	
1864	30.000	-6.000	
1865	30.000	-9.000	
1866	30.000	-12.000	
1867	30.000	-17.000	
1868	30.000	-21.000	
1869	30.000	-25.000	
1870	30.000	-29.000	
1871	30.000	-33.000	
1872	30.000	-38.000	
1873	30.000	-43.000	
1874	30.000	-48.000	
1875	30.000	-53.000	
1876	30.000	-58.000	
1877	30.000	-63.000	
1878	30.000	-68.000	
1879	30.000	-73.000	4
1880	40.000	9.000	
1881	40.000	6.000	
1882	40.000	4.000	
1883	40.000	2.000	
1884	40.000	0.000	
1885	40.000	-2.000	
1886	40.000	-4.000	
1887	40.000	-6.000	
1888	40.000	-9.000	
1889	40.000	-12.000	
1890	40.000	-17.000	
1891	40.000	-21.000	
1892	40.000	-25.000	
1893	40.000	-29.000	
1894	40.000	-33.000	
1895	40.000	-38.000	
1896	40.000	-43.000	
1897	40.000	-48.000	
1898	40.000	-53.000	
1899	40.000	-58.000	
1900	40.000	-63.000	
1901	40.000	-68.000	
1902	40.000	-73.000	4
1903	50.000	9.000	2
1904	50.000	6.000	2
1905	50.000	4.000	2
1906	50.000	2.000	2
1907	50.000	0.000	2
1908	50.000	-2.000	2
1909	50.000	-4.000	2
1910	50.000	-6.000	2
1911	50.000	-9.000	2
1912	50.000	-12.000	2
1913	50.000	-17.000	2
1914	50.000	-21.000	2
1915	50.000	-25.000	2
1916	50.000	-29.000	2
1917	50.000	-33.000	2
1918	50.000	-38.000	2
1919	50.000	-43.000	2
1920	50.000	-48.000	2
1921	50.000	-53.000	2
1922	50.000	-58.000	2
1923	50.000	-63.000	2
1924	50.000	-68.000	2
1925	50.000	-73.000	4

excerpt from TR1CI.O25

```
XMAX=  2.2359 SECTION C-C, 08/2002
 ACCELERATION VALUES AT OUTCROPPING LAYER 25 -  Transporter Route, HBPP, ISFSI, 08/
 0.009200 0.011824 0.014031 0.015745 0.016902 0.017462 0.017403 0.016728      1
 0.015458 0.013642 0.011339 0.008634 0.005620 0.002407-0.000894-0.004162      2
-0.007285-0.010148-0.012652-0.014705-0.016235-0.017188-0.017527-0.017241      3
-0.016340-0.014855-0.012837-0.010359-0.007508-0.004386-0.001102 0.002225      4
 0.005480 0.008544 0.011309 0.013677 0.015562 0.016898 0.017635 0.017750      5
 0.017234 0.016109 0.014409 0.012201 0.009557 0.006576 0.003359 0.000024      6
-0.003312-0.006528-0.009512-0.012154-0.014362-0.016054-0.017171-0.017670      7
-0.017533-0.016764-0.015386-0.013449-0.011019-0.008181-0.005034-0.001688      8
 0.001741 0.005132 0.008367 0.011334 0.013928 0.016061 0.017658 0.018668      9
 0.019055 0.018812 0.017947 0.016501 0.014523 0.012094 0.009301 0.006254     10
 0.003062-0.000149-0.003263-0.006157-0.008723-0.010860-0.012484-0.013526     11
-0.013941-0.013704-0.012813-0.011290-0.009178-0.006542-0.003465-0.000046     12
 0.003604 0.007364 0.011110 0.014721 0.018074 0.021062 0.023584 0.025561     13
 0.026927 0.027644 0.027688 0.027068 0.025807 0.023960 0.021589 0.018790     14
 0.015657 0.012312 0.008869 0.005457 0.002192-0.000805-0.003431-0.005591     15
-0.007212-0.008237-0.008635-0.008391-0.007520-0.006056-0.004056-0.001595     16
 0.001233 0.004324 0.007560 0.010822 0.013986 0.016937 0.019558 0.021757     17
 0.023442 0.024554 0.025041 0.024888 0.024087 0.022669 0.020672 0.018171     18
 0.015243 0.011997 0.008538 0.004993 0.001479-0.001873-0.004953-0.007644     19
-0.009859-0.011514-0.012553-0.012937-0.012655-0.011713-0.010148-0.008012     20
-0.005383-0.002352 0.000971 0.004469 0.008017 0.011491 0.014763 0.017720     21
 0.020252 0.022273 0.023705 0.024501 0.024627 0.024083 0.022880 0.021068     22
 0.018702 0.015872 0.012671 0.009220 0.005633 0.002043-0.001430-0.004655     23
-0.007526-0.009935-0.011803-0.013059-0.013663-0.013592-0.012853-0.011471     24
-0.009498-0.007005-0.004085-0.000841 0.002605 0.006133 0.009608 0.012909     25
 0.015909 0.018503 0.020590 0.022098 0.022961 0.023152 0.022652 0.021483     26
 0.019674 0.017294 0.014414 0.011143 0.007583 0.003867 0.000114-0.003537     27
-0.006966-0.010049-0.012684-0.014775-0.016255-0.017071-0.017200-0.016637     28
-0.015408-0.013556-0.011154-0.008287-0.005064-0.001600 0.001975 0.005535     29
 0.008943 0.012080 0.014826 0.017082 0.018761 0.019803 0.020161 0.019826     30
 0.018796 0.017115 0.014828 0.012022 0.008785 0.005235 0.001488-0.002318     31
-0.006061-0.009602-0.012828-0.015620-0.017890-0.019556-0.020567-0.020888     32
-0.020516-0.019467-0.017785-0.015534-0.012802-0.009688-0.006313-0.002798     33
 0.000723 0.004122 0.007270 0.010054 0.012367 0.014128 0.015266 0.015744     34
 0.015537 0.014658 0.013131 0.011020 0.008391 0.005349 0.001995-0.001539     35
-0.005133-0.008649-0.011966-0.014956-0.017517-0.019549-0.020986-0.021770     36
-0.021880-0.021309-0.020085-0.018253-0.015888-0.013078-0.009935-0.006579     37
-0.003144 0.000239 0.003432 0.006312 0.008755 0.010668 0.011960 0.012579     38
 0.012480 0.011664 0.010139 0.007960 0.005186 0.001920-0.001737-0.005645     39
-0.009676-0.013674-0.017502-0.021008-0.024067-0.026554-0.028376-0.029450     40
-0.029732-0.029193-0.027846-0.025722-0.022890-0.019438-0.015484-0.011161     41
-0.006622-0.002024 0.002463 0.006678 0.010462 0.013672 0.016178 0.017880     42
 0.018695 0.018581 0.017514 0.015518 0.012634 0.008950 0.004566-0.000374     43
-0.005725-0.011304-0.016939-0.022434-0.027614-0.032293-0.036318-0.039539     44
-0.041845-0.043144-0.043383-0.042537-0.040625-0.037692-0.033824-0.029134     45
-0.023764-0.017879-0.011662-0.005306 0.000988 0.007025 0.012613 0.017580     46
 0.021767 0.025050 0.027324 0.028529 0.028628 0.027634 0.025580 0.022552     47
 0.018649 0.014020 0.008814 0.003221-0.002578-0.008375-0.013985-0.019211     48
-0.023886-0.027849-0.030978-0.033167-0.034355-0.034506-0.033627-0.031756     49
-0.028967-0.025365-0.021083-0.016276-0.011118-0.005791-0.000488 0.004606     50
 0.009309 0.013458 0.016904 0.019530 0.021237 0.021974 0.021704 0.020444     51
 0.018226 0.015133 0.011258 0.006739 0.001714-0.003642-0.009165-0.014669     52
-0.019990-0.024955-0.029622-0.033253-0.036351-0.038633-0.040057-0.040604     53
-0.040293-0.039168-0.037309-0.034814-0.031807-0.028425-0.024819-0.021142     54
-0.017549-0.014183-0.011182-0.008658-0.006709-0.005397-0.004768-0.004826     55
-0.005554-0.006898-0.008786-0.011110-0.013755-0.016576-0.019432-0.022168     56
-0.024639-0.026701-0.028232-0.029123-0.029295-0.028694-0.027300-0.025124     57
-0.022213-0.018644-0.014526-0.009996-0.005214-0.000355 0.004389 0.008828     58
 0.012767 0.016028 0.018440 0.019867 0.020187 0.019329 0.017240 0.013929     59
 0.009424 0.003819-0.002777-0.010193-0.018249-0.026714-0.035360-0.043921     60
-0.052150-0.059780-0.066575-0.072302-0.076769-0.079806-0.081291-0.081143     61
-0.079330-0.075868-0.070823-0.064311-0.056489-0.047562-0.037758-0.027347     62
-0.016603-0.005826 0.004694 0.014666 0.023823 0.031914 0.038730 0.044093     63
 0.047875 0.049994 0.050419 0.049174 0.046327 0.042003 0.036361 0.029611     64
 0.021978 0.013729 0.005129-0.003534-0.011992-0.019973-0.027239-0.033568     65
-0.038785-0.042745-0.045354-0.046561-0.046367-0.044817-0.042001-0.038052     66
-0.033135-0.027449-0.021210-0.014651-0.008007-0.001512 0.004612 0.010164     67
 0.014969 0.018885 0.021807 0.023673 0.024459 0.024190 0.022924 0.020767     68
 0.017850 0.014341 0.010419 0.006288 0.002146-0.001800-0.005365-0.008374     69
-0.010684-0.012180-0.012790-0.012477-0.011251-0.009164-0.006311-0.002826     70
 0.001122 0.005337 0.009597 0.013671 0.017319 0.020312 0.022426 0.023470     71
 0.023274 0.021720 0.018718 0.014248 0.008323 0.001032-0.007505-0.017093     72
-0.027513-0.038482-0.049706-0.060844-0.071564-0.081510-0.090351-0.097763     73
-0.103463-0.107201-0.108780-0.108064-0.104975-0.099512-0.091733-0.081781     74
-0.069849-0.056215-0.041191-0.025163-0.008527 0.008264 0.024772 0.040530     75
 0.055109 0.068081 0.079078 0.087764 0.093874 0.097205 0.097630 0.095106     76
 0.089660 0.081617 0.070558 0.057361 0.042146 0.025313 0.007281-0.011467     77
-0.030461-0.049192-0.067189-0.083975-0.099133-0.112268-0.123062-0.131247     78
-0.136639-0.139122-0.138661-0.135304-0.129168-0.120452-0.109404-0.096351     79
-0.081641-0.065685-0.048889-0.031699-0.014532 0.002179 0.018057 0.032730     80
 0.045896 0.057280 0.066689 0.073966 0.079038 0.081876 0.082527 0.081081     81
 0.077687 0.072534 0.065846 0.057879 0.048897 0.039187 0.029018 0.018667     82
 0.008378-0.001615-0.011121-0.019968-0.028037-0.035228-0.041498-0.046821     83
-0.051219-0.054729-0.057423-0.059381-0.060700-0.061478-0.061814-0.061799     84
-0.061511-0.061013-0.060346-0.059531-0.058563-0.057421-0.056054-0.054404     85
-0.052389-0.049927-0.046923-0.043298-0.038964-0.033870-0.027959-0.021230     86
-0.013680-0.005372 0.003629 0.013188 0.023170 0.033373 0.043598 0.053594     87
 0.063116 0.071890 0.079655 0.086143 0.091114 0.094342 0.095640 0.094859     88
 0.091896 0.086704 0.079285 0.069713 0.058102 0.044649 0.029578 0.013191     89
-0.004193-0.022192-0.040428-0.058475-0.075934-0.092382-0.107441-0.120740     90
-0.131963-0.140832-0.147131-0.150705-0.151462-0.149391-0.144536-0.137027     91
-0.127039-0.114835-0.100695-0.084985-0.068061-0.050347-0.032236-0.014165     92
 0.003484 0.020306 0.035973 0.050156 0.062614 0.073124 0.081557 0.087812     93
 0.091842 0.093793 0.093649 0.091589 0.087814 0.082546 0.076049 0.068598     94
 0.060485 0.051993 0.043404 0.034976 0.026946 0.019512 0.012842 0.007055     95
 0.002232-0.001592-0.004423-0.006310-0.007332-0.007605-0.007259-0.006451     96
-0.005336-0.004079-0.002831-0.001736-0.000911-0.000453-0.000424-0.000861     97
-0.001757-0.003081-0.004762-0.006706-0.008788-0.010872-0.012797-0.014411     98
-0.015546-0.016063-0.015818-0.014712-0.012653-0.009606-0.005551-0.000531     99
 0.005393 0.012095 0.019435 0.027216 0.035235 0.043244 0.051001 0.058239    100
 0.064712 0.070169 0.074392 0.077183 0.078389 0.077894 0.075634 0.071596    101
 0.065823 0.058413 0.049514 0.039330 0.028104 0.016123 0.003698-0.008832    102
-0.021124-0.032827-0.043606-0.053145-0.061155-0.067393-0.071656-0.073806    103
-0.073748-0.071468-0.066994-0.060440-0.051949-0.041753-0.030096-0.017297    104
-0.003669 0.010417 0.024619 0.038559 0.051907 0.064323 0.075532 0.085265    105
```

excerpt from TR1C.Q4O

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**************************************************
**************************************************
** QUAD4MU  A COMPUTER PROGRAM FOR EVALUATING THE **
**          SEISMIC RESPONSE OF SOIL STRUCTURES   **
**                U.C.Davis, 1993                 **
**             by Martin Byrd Hudson,             **
**                I.M.Idriss,                     **
**                and Mohsen Beikae               **
**    MODIFIED FROM QUAD4, 1973                   **
**             by I.M.Idriss,                     **
**                J. Lysmer,                      **
**                R. Hwang and                    **
**                H. Bolton Seed                  **
**************************************************
**************************************************

   TR1C: HUMBOLDT BAY, TRANSPORTER ROUTE, PG&E, 09/2002
 HORIZONTAL ACCELERATION INPUT FILE:
    TR1CI.025
 WITH FIRST LINE:
                        XMAX=  2.2359 SECTION C-C, 08/2002


                  NO. OF ELEMENTS =  1835
               NO. OF NODAL POINTS =  1925
                DEGREES OF FREEDOM =  3850
                  HALF-BANDWIDTH =    60
              CONTROLLING ELEMENT =   497
         NO. OF FIXED BNDRY CONDS. =   126
                NO. OF ITERATIONS =    20
     TOTAL EQ. POINTS READ (KGMAX) = 12000
 LAST EQ. PTS. USED (N1EQ TO KGEQ)  =     1 12000
   INT. EQ. PTS USED (N2EQ TO N3EQ) =     1 12000
          TIME INTERVAL OF RECORDS =  0.0050  SECONDS
          STRAIN CONVERSION FACTOR =  0.6500
    DAMPING RATIO REDUCTION FACTOR =   1.000
   PREDOMINANT INPUT MOTION PERIOD =  0.2500  SECONDS
    EQ. MULT. FACTOR (HORZ. COMP.) =  1.0000
 MAXIMUM ACCEL. USED (HORZ. COMP.) =  2.2359

    0 STRESS HISTORIES REQUESTED,
    7 ACCEL HISTORIES REQUESTED,
    1 SEIS COEFF HISTORIES REQUESTED
        OUTPUT FILES ARE AS FOLLOWS:

   NODE   51,   X DIR IN FILE:  TR1C00.Q4A
   NODE   76,   X DIR IN FILE:  TR1C01.Q4A
   NODE  101,   X DIR IN FILE:  TR1C02.Q4A
   NODE  765,   X DIR IN FILE:  TR1C03.Q4A
   NODE  821,   X DIR IN FILE:  TR1C04.Q4A
   NODE  961,   X DIR IN FILE:  TR1C05.Q4A
   NODE 1114,   X DIR IN FILE:  TR1C06.Q4A
SURFACE   1,   X DIR IN FILE:  TR1C00.QSC

 SOIL DATA TAKEN FROM FILE: hbsoilnw.dat

**********************
 MATERIAL TYPE NO. 1
**********************
MODULUS:      #1 modulus for Clay PI 15 (Vucetic and Dobry 1991)
DAMPING:      damping for Clay PI 15 (Vucetic & Dobry 1991)
 ==================    ==================
   STRAIN    G/Gmax       STRAIN    DAMPING
  --------   -------     --------  --------
    0.0001    1.000        0.0001      1.70
    0.0003    1.000        0.0003      1.70
    0.0010    1.000        0.0010      1.70
    0.0032    0.940        0.0032      2.60
    0.0100    0.820        0.0100      4.50
    0.0316    0.640        0.0316      7.80
    0.1000    0.400        0.1000     11.70
    0.3160    0.210        0.3160     16.30
    1.0000    0.090        1.0000     20.20
    3.1600    0.040        3.1600     23.00
   10.0000    0.020       10.0000     23.00

  [lines skipped]

    ITERATION NO.  20


DAMPING SET AT THE FOLLOWING TWO FREQUENCIES:
THE FIRST NATURAL FREQUENCY: CIRC FREQ=       7.546; PERIOD=     0.833 SEC
  5 TIMES THE NATURAL FREQ.: CIRC FREQ=      37.729; PERIOD=     0.167 SEC


TIME REQUIRED FOR FORMATION AND TRIANGULIZATION OF MATRICES =          1.  SEC

    MODULI (ENG: KSF or SI: KN/M^2) AND DAMPING
 ELM      G-USED       G-NEW     DIF-G   DAMP-USED    DAMP-NEW  DIF-DAMP


   1      3104.2      3108.2      -0.1   0.02484     0.02466      0.7
   2      2573.0      2580.8      -0.3   0.05132     0.05088      0.9
   3      2027.5      2038.2      -0.5   0.08141     0.08088      0.7
```

4	1551.3	1563.5	-0.8	0.10504	0.10443	0.6
5	1258.7	1267.8	-0.7	0.12081	0.12013	0.6
6	1064.3	1075.0	-1.0	0.13517	0.13439	0.6
7	859.8	876.1	-1.9	0.15029	0.14909	0.8
8	673.1	679.1	-0.9	0.16446	0.16387	0.4
9	2221.4	2233.8	-0.6	0.12148	0.12097	0.4
10	1990.0	2000.7	-0.5	0.13110	0.13066	0.3
11	1715.3	1727.5	-0.7	0.14252	0.14202	0.4
12	109.8	109.8	0.0	0.27358	0.27359	0.0
13	383.2	385.3	-0.5	0.24979	0.24960	0.1
14	379.8	378.3	0.4	0.25194	0.25207	-0.1
15	219.2	211.0	3.9	0.26569	0.26641	-0.3
16	125.6	124.4	0.9	0.27718	0.27739	-0.1
17	5146.9	5146.5	0.0	0.12239	0.12240	0.0
18	4811.1	4814.6	-0.1	0.12836	0.12830	0.0
19	2613.1	2637.4	-0.9	0.15910	0.15843	0.4
20	2491.6	2502.1	-0.4	0.16514	0.16486	0.2

[lines skipped]

PEAK NODAL ACCELERATION VALUES (g's)

NODE	XORD	YORD	X-ACC	AT TIME	Y-ACC	AT TIME
1	-400.0	12.0	1.9293	23.2350	0.0000	0.0000
2	-400.0	11.0	1.9280	23.2350	0.0000	0.0000
3	-400.0	9.0	1.9257	23.2400	0.0000	0.0000
4	-400.0	6.0	1.9201	23.2400	0.0000	0.0000
5	-400.0	4.0	1.9097	23.2350	0.0000	0.0000
6	-400.0	2.0	1.8969	23.2350	0.0000	0.0000
7	-400.0	0.0	1.8772	23.2350	0.0000	0.0000
8	-400.0	-2.0	1.8471	23.2400	0.0000	0.0000
9	-400.0	-4.0	1.8071	23.2350	0.0000	0.0000
10	-400.0	-6.0	1.7967	24.4950	0.0000	0.0000
11	-400.0	-9.0	1.7806	24.4950	0.0000	0.0000
12	-400.0	-12.0	1.7588	24.4950	0.0000	0.0000
13	-400.0	-17.0	1.8121	23.3450	0.0000	0.0000
14	-400.0	-21.0	1.9076	23.7150	0.0000	0.0000
15	-400.0	-25.0	2.0006	23.7100	0.0000	0.0000
16	-400.0	-29.0	2.0129	23.7000	0.0000	0.0000
17	-400.0	-33.0	2.2053	24.7250	0.0000	0.0000
18	-400.0	-38.0	2.2055	24.7250	0.0000	0.0000
19	-400.0	-43.0	2.1928	24.7200	0.0000	0.0000
20	-400.0	-48.0	2.1506	24.7200	0.0000	0.0000

[lines skipped]

PEAK ELEMENTS STRESSES (ENG: PSF or SI: N/M^2) AND STRAINS

ELM	SIG-X	SIG-Y	SIG-XY	EPS-MAX	AT TIME
1	237.7	4.2	124.1	0.004	23.240
2	187.1	7.3	485.4	0.019	23.240
3	142.9	12.8	1073.0	0.053	23.245
4	146.4	19.3	1646.1	0.106	23.250
5	123.4	22.0	2094.2	0.166	23.250
6	107.8	24.5	2529.4	0.238	23.250
7	87.9	28.4	2951.5	0.343	23.250
8	69.6	31.8	3357.1	0.499	23.255
9	296.5	30.0	3773.9	0.170	23.250
10	284.5	32.3	4308.1	0.217	23.255
11	269.4	36.3	4933.7	0.288	23.255
12	32.8	59.6	5674.2	5.166	24.545
13	86.4	66.3	6232.4	1.627	24.545
14	87.9	72.3	6931.0	1.825	23.370
15	29.9	77.2	7798.9	3.558	23.365
16	56.5	78.1	8487.2	6.759	23.360
17	116.3	72.0	9063.0	0.176	23.340
18	106.3	66.6	9818.2	0.204	23.330
19	55.4	64.5	10597.7	0.406	23.325
20	49.1	62.4	11347.6	0.455	23.320

[lines skipped]

1 MAX & MIN SEISMIC COEFFICIENTS

SURFACE	WEIGHT(LB or N)	X-DIRECTION NEGATIVE	X-DIRECTION POSITIVE
1	259061.7500	-1.8592	1.7915

ITERATION CYCLE NO. 20 AVE OVERALL DAMP = 0.177

TIME REQUIRED FOR 12000 STEPS = 211. SEC

****
** END OF JOB **
****

excerpt from TR1C00.QSC

```
TR1C: HUMBOLDT BAY, TRANSPORTER ROUTE, PG&E, 09/2002
   Seismic Coefficient Surface History
 Time Step =      0.005 Sec
  Surface   1

  0.000000  0.000002  0.000005  0.000011  0.000021  0.000034  0.000051  0.000072
  0.000097  0.000125  0.000157  0.000191  0.000227  0.000264  0.000302  0.000340
  0.000380  0.000421  0.000466  0.000516  0.000573  0.000640  0.000720  0.000816
  0.000932  0.001070  0.001233  0.001423  0.001642  0.001888  0.002161  0.002457
  0.002774  0.003106  0.003446  0.003786  0.004118  0.004432  0.004719  0.004969
  0.005174  0.005324  0.005412  0.005433  0.005383  0.005259  0.005061  0.004793
  0.004458  0.004064  0.003618  0.003132  0.002618  0.002088  0.001557  0.001037
  0.000544  0.000091 -0.000312 -0.000653 -0.000924 -0.001119 -0.001233 -0.001265
 -0.001217 -0.001093 -0.000898 -0.000643 -0.000337  0.000008  0.000377  0.000756
  0.001131  0.001487  0.001810  0.002088  0.002311  0.002468  0.002553  0.002563
  0.002495  0.002352  0.002136  0.001855  0.001517  0.001133  0.000716  0.000278
 -0.000164 -0.000598 -0.001009 -0.001382 -0.001706 -0.001970 -0.002166 -0.002287
 -0.002329 -0.002291 -0.002174 -0.001983 -0.001724 -0.001405 -0.001038 -0.000634
 -0.000206  0.000233  0.000668  0.001088  0.001479  0.001830  0.002134  0.002382
  0.002570  0.002697  0.002763  0.002771  0.002727  0.002639  0.002516  0.002370
  0.002214  0.002062  0.001927  0.001822  0.001761  0.001755  0.001814  0.001946
  0.002157  0.002448  0.002821  0.003273  0.003799  0.004391  0.005040  0.005733
  0.006457  0.007197  0.007938  0.008664  0.009361  0.010014  0.010610  0.011139
  0.011591  0.011959  0.012241  0.012435  0.012542  0.012566  0.012514  0.012397
  0.012223  0.012006  0.011759  0.011496  0.011231  0.010979  0.010750  0.010556
  0.010407  0.010310  0.010270  0.010289  0.010368  0.010502  0.010687  0.010916
  0.011178  0.011462  0.011755  0.012045  0.012318  0.012561  0.012762  0.012909
  0.012992  0.013006  0.012944  0.012803  0.012583  0.012288  0.011922  0.011492
  0.011009  0.010484  0.009930  0.009361  0.008792  0.008239  0.007714  0.007231
  0.006800  0.006431  0.006133  0.005909  0.005761  0.005690  0.005693  0.005762
  0.005891  0.006068  0.006282  0.006518  0.006764  0.007002  0.007221  0.007404
  0.007540  0.007618  0.007631  0.007569  0.007431  0.007214  0.006921  0.006556
  0.006125  0.005639  0.005108  0.004545  0.003966  0.003384  0.002815  0.002272
  0.001771  0.001323  0.000938  0.000626  0.000390  0.000236  0.000164  0.000169
  0.000248  0.000393  0.000592  0.000835  0.001108  0.001396  0.001684  0.001959
  0.002204  0.002407  0.002558  0.002644  0.002660  0.002601  0.002464  0.002251
  0.001964  0.001611  0.001200  0.000742  0.000251 -0.000261 -0.000778 -0.001285
 -0.001767 -0.002211 -0.002604 -0.002935 -0.003194 -0.003376 -0.003477 -0.003497
 -0.003437 -0.003302 -0.003100 -0.002840 -0.002536 -0.002199 -0.001845 -0.001489
 -0.001146 -0.000832 -0.000560 -0.000342 -0.000189 -0.000110 -0.000109 -0.000190
 -0.000353 -0.000593 -0.000907 -0.001286 -0.001718 -0.002192 -0.002693 -0.003207
 -0.003719 -0.004214 -0.004677 -0.005094 -0.005454 -0.005747 -0.005967 -0.006108
 -0.006169 -0.006151 -0.006057 -0.005894 -0.005671 -0.005399 -0.005089 -0.004757
 -0.004416 -0.004081 -0.003766 -0.003484 -0.003248 -0.003069 -0.002953 -0.002907
 -0.002933 -0.003032 -0.003202 -0.003437 -0.003730 -0.004071 -0.004449 -0.004851
 -0.005265 -0.005675 -0.006070 -0.006435 -0.006759 -0.007034 -0.007250 -0.007402
 -0.007489 -0.007509 -0.007466 -0.007364 -0.007212 -0.007018 -0.006797 -0.006559
 -0.006319 -0.006090 -0.005887 -0.005723 -0.005609 -0.005555 -0.005569 -0.005656
 -0.005818 -0.006054 -0.006360 -0.006731 -0.007158 -0.007624 -0.008121 -0.008632
 -0.009140 -0.009629 -0.010082 -0.010484 -0.010820 -0.011079 -0.011250 -0.011328
 -0.011307 -0.011190 -0.010978 -0.010679 -0.010304 -0.009866 -0.009381 -0.008867
 -0.008346 -0.007836 -0.007359 -0.006936 -0.006585 -0.006325 -0.006169 -0.006128
 -0.006211 -0.006421 -0.006758 -0.007217 -0.007788 -0.008458 -0.009211 -0.010025
 -0.010879 -0.011747 -0.012603 -0.013420 -0.014173 -0.014837 -0.015388 -0.015807
 -0.016078 -0.016188 -0.016128 -0.015895 -0.015491 -0.014924 -0.014203 -0.013346
 -0.012371 -0.011302 -0.010164 -0.008986 -0.007796 -0.006623 -0.005495 -0.004439
 -0.003479 -0.002636 -0.001927 -0.001365 -0.000959 -0.000712 -0.000623 -0.000687
 -0.000891 -0.001222 -0.001662 -0.002188 -0.002777 -0.003405 -0.004046 -0.004675
 -0.005267 -0.005802 -0.006259 -0.006623 -0.006881 -0.007026 -0.007054 -0.006965
 -0.006765 -0.006464 -0.006074 -0.005613 -0.005101 -0.004560 -0.004011 -0.003479
 -0.002986 -0.002556 -0.002210 -0.001964 -0.001835 -0.001834 -0.001969 -0.002245
 -0.002660 -0.003212 -0.003891 -0.004687 -0.005584 -0.006567 -0.007615 -0.008709
 -0.009828 -0.010951 -0.012057 -0.013130 -0.014151 -0.015107 -0.015987 -0.016781
 -0.017483 -0.018090 -0.018605 -0.019031 -0.019373 -0.019639 -0.019837 -0.019978
 -0.020074 -0.020135 -0.020170 -0.020189 -0.020198 -0.020204 -0.020211 -0.020218
 -0.020226 -0.020232 -0.020230 -0.020214 -0.020177 -0.020110 -0.020007 -0.019857
 -0.019654 -0.019393 -0.019071 -0.018687 -0.018245 -0.017748 -0.017205 -0.016629
 -0.016035 -0.015441 -0.014867 -0.014335 -0.013869 -0.013492 -0.013230 -0.013104
 -0.013134 -0.013338 -0.013729 -0.014316 -0.015104 -0.016090 -0.017267 -0.018624
 -0.020141 -0.021792 -0.023547 -0.025370 -0.027222 -0.029061 -0.030845 -0.032529
 -0.034067 -0.035416 -0.036536 -0.037393 -0.037954 -0.038194 -0.038095 -0.037648
 -0.036849 -0.035704 -0.034228 -0.032443 -0.030377 -0.028064 -0.025547 -0.022874
 -0.020093 -0.017255 -0.014414 -0.011623 -0.008934 -0.006394 -0.004044 -0.001922
 -0.000059  0.001520  0.002800  0.003774  0.004441  0.004810  0.004895  0.004719
  0.004310  0.003702  0.002933  0.002042  0.001071  0.000066 -0.000935 -0.001893
 -0.002771 -0.003536 -0.004161 -0.004623 -0.004908 -0.005006 -0.004912 -0.004630
 -0.004165 -0.003532 -0.002747 -0.001831 -0.000808  0.000298  0.001461  0.002656
  0.003858  0.005044  0.006193  0.007288  0.008313  0.009258  0.010115  0.010880
  0.011550  0.012129  0.012619  0.013025  0.013352  0.013607  0.013796  0.013920
  0.013983  0.013985  0.013922  0.013788  0.013574  0.013268  0.012857  0.012324
  0.011651  0.010817  0.009808  0.008605  0.007192  0.005557  0.003692  0.001594
 -0.000733 -0.003281 -0.006035 -0.008970 -0.012058 -0.015264 -0.018544 -0.021847
 -0.025122 -0.028313 -0.031359 -0.034201 -0.036780 -0.039041 -0.040934 -0.042412
 -0.043437 -0.043980 -0.044020 -0.043550 -0.042575 -0.041110 -0.039184 -0.036838
 -0.034120 -0.031091 -0.027825 -0.024401 -0.020899 -0.017408 -0.014021 -0.010825
 -0.007905 -0.005342 -0.003208 -0.001567 -0.000474  0.000032 -0.000075 -0.000809
 -0.002164 -0.004119 -0.006641 -0.009684 -0.013184 -0.017069 -0.021257 -0.025657
 -0.030170 -0.034694 -0.039127 -0.043369 -0.047327 -0.050908 -0.054029 -0.056620
 -0.058619 -0.059979 -0.060665 -0.060660 -0.059962 -0.058581 -0.056542 -0.053886
 -0.050667 -0.046947 -0.042798 -0.038301 -0.033545 -0.028621 -0.023616 -0.018619
 -0.013722 -0.009007 -0.004551 -0.000426  0.003304  0.006589  0.009387  0.011666
  0.013407  0.014599  0.015246  0.015357  0.014951  0.014058  0.012713  0.010958
  0.008841  0.006414  0.003731  0.000848 -0.002181 -0.005299 -0.008450 -0.011578
 -0.014634 -0.017570 -0.020337 -0.022892 -0.025199 -0.027221 -0.028927 -0.030289
 -0.031285 -0.031896 -0.032107 -0.031907 -0.031288 -0.030250 -0.028797 -0.026934
 -0.024674 -0.022038 -0.019047 -0.015731 -0.012125 -0.008266 -0.004201  0.000020
  0.004337  0.008693  0.013024  0.017262  0.021338  0.025180  0.028719  0.031890
  0.034627  0.036868  0.038559  0.039653  0.040110  0.039899  0.039005  0.037420
  0.035150  0.032212  0.028637  0.024468  0.019764  0.014591  0.009026  0.003155
 -0.002927 -0.009119 -0.015320 -0.021426 -0.027330 -0.032927 -0.038120 -0.042820
 -0.046948 -0.050434 -0.053215 -0.055243 -0.056489 -0.056936 -0.056581 -0.055437
 -0.053534 -0.050912 -0.047626 -0.043741 -0.039334 -0.034488 -0.029290 -0.023835
 -0.018217 -0.012533 -0.006876 -0.001337  0.004004  0.009070  0.013794  0.018120
  0.021999  0.025395  0.028283  0.030651  0.032496  0.033824  0.034653  0.035008
  0.034921  0.034429  0.033573  0.032402  0.030963  0.029305  0.027477  0.025526
  0.023497  0.021432  0.019368  0.017342  0.015386  0.013524  0.011780  0.010174
  0.008722  0.007437  0.006330  0.005406  0.004674  0.004137  0.003800  0.003667
  0.003738  0.004017  0.004504  0.005197  0.006098  0.007203  0.008508  0.010007
  0.011691  0.013548  0.015563  0.017716  0.019985  0.022343  0.024761  0.027202
```

excerpt from TR3C.Q4I

```
TR3C: HUMBOLDT BAY, TRANSPORTER ROUTE, PG&E, 09/2002
UNITS (E for English, S for SI):                                  *** (A1)            ***
E
       DRF        PRM     ROCKVP     ROCKVS    ROCKRHO             *** (5F10.0)        ***
         1       0.65       7560.       1800.      130.
 NELM NDPT NSLP                                                   *** (3I5)           ***
 1835 1925    1
NGMAX KGEQ N1EQ N2EQ N3EQ NUMB   KV KSAV                          *** (8I5)           ***
1200012000    1    112000   30    1    0
     DTEQ     EQMUL1     EQMUL2     UGMAX1     UGMAX2 NDRX NDRY NPLX NPLY    PRINPUT *** (5F10.0,4I5,F10.0) ***
    0.005       1.0        1.0                              2    0    8    0      0.20
EARTHQUAKE INPUT FILE NAME(S) & FORMAT(S) (* for FREE FORMAT)  *** (A)             ***
TR3CI.025
(8F9.6)
 SOUT AOUT KOUT                                                   *** (3I5)           ***
    0    1    1
ACCELERATION OUTPUT FORMAT (M or C), FILE PREFIX, AND SUFFIX:  *** (A)             ****
MULTIPLE
TR3C
Q4A
SEISMIC COEFF OUT(UT FORMAT (M OR C), FILE PREFIX, AND SUFFIX: ***(A)
MULTIPLE
TR3C
QSC
NSEG ESEG  ***(2I5)
   44  187
NOSEG
  709  710  711  739  740  768  769  797  798  826  827  828  856  857  885
  886  914  915  943  944  971  972  998  999 1024 1049 1074 1099 1100 1125
 1149 1172 1194 1215 1235 1254 1272 1289 1288 1304 1320 1336 1352 1351
ELSEG
  685  686  712  713  714  739  740  741  742  766  767  768  769  770  793
  794  795  796  797  798  799  820  821  822  823  824  825  826  827  847
  848  849  850  851  852  853  854  855  874  875  876  877  878  879  880
  881  882  883  901  902  903  904  905  906  907  908  909  910  911  928
  929  930  931  932  933  934  935  936  937  938  954  955  956  957  958
  959  960  961  962  963  964  978  980  981  982  983  984  985  986  987
  988 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1027 1028 1029 1030
 1031 1032 1033 1034 1035 1036 1051 1052 1053 1054 1055 1056 1057 1058 1059
 1060 1061 1075 1076 1077 1078 1079 1080 1081 1082 1083 1084 1085 1099 1100
 1101 1102 1103 1104 1105 1106 1107 1108 1122 1123 1124 1125 1126 1127 1128
 1129 1130 1144 1145 1146 1147 1148 1149 1150 1151 1165 1166 1167 1168 1169
 1170 1171 1185 1186 1187 1188 1189 1190 1204 1205 1206 1207 1208 1222 1223
 1224 1225 1239 1240 1255 1270 1285
   M  NP1  NP2  NP3  NP4 TYPE      DENS        PO       GMX         G        XL LSTR  *** (6I5,5F10.0,I5) ***
   1    1    2   27   26    1    125.00       .33   3275.43   2620.34    .10000
   2    2    3   28   27    1    125.00       .33   3275.43   2620.34    .10000
   3    3    4   29   28    1    125.00       .33   3275.43   2620.34    .10000
   4    4    5   30   29    1    125.00       .47   3275.43   2620.34    .10000
   5    5    6   31   30    1    125.00       .47   3275.43   2620.34    .10000
   6    6    7   32   31    1    125.00       .47   3275.43   2620.34    .10000
   7    7    8   33   32    1    125.00       .47   3275.43   2620.34    .10000
   8    8    9   34   33    1    125.00       .47   3275.43   2620.34    .10000
   9    9   10   35   34    1    125.00       .47   5822.98   4658.39    .10000
  10   10   11   36   35    1    125.00       .47   5822.98   4658.39    .10000
   .
   .
   .
   [same as TR1C.Q4I]
```

excerpt from TR3CI.O25

```
XMAX=  2.5250 SECTION C-C, 08/2002
 ACCELERATION VALUES AT OUTCROPPING LAYER 25 -  Transporter Route, HBPP, ISFSI, 08/
 0.001009 0.003525 0.005914 0.008091 0.009980 0.011512 0.012633 0.013303      1
 0.013498 0.013210 0.012448 0.011238 0.009622 0.007658 0.005412 0.002965      2
 0.000401-0.002188-0.004711-0.007080-0.009211-0.011027-0.012465-0.013473      3
-0.014016-0.014073-0.013642-0.012737-0.011390-0.009649-0.007573-0.005237      4
-0.002723-0.000120 0.002480 0.004985 0.007306 0.009359 0.011071 0.012381      5
 0.013241 0.013620 0.013503 0.012892 0.011808 0.010288 0.008385 0.006165      6
 0.003706 0.001092-0.001582-0.004224-0.006739-0.009040-0.011045-0.012682      7
-0.013894-0.014637-0.014885-0.014630-0.013880-0.012662-0.011019-0.009012      8
-0.006711-0.004201-0.001572 0.001080 0.003658 0.006068 0.008219 0.010032      9
 0.011437 0.012379 0.012819 0.012737 0.012128 0.011010 0.009416 0.007395     10
 0.005016 0.002359-0.000488-0.003426-0.006353-0.009169-0.011773-0.014075     11
-0.015980-0.017449-0.018399-0.018799-0.018633-0.017900-0.016619-0.014830     12
-0.012587-0.009963-0.007043-0.003921-0.000701 0.002513 0.005614 0.008499     13
 0.011072 0.013250 0.014960 0.016148 0.016773 0.016820 0.016286 0.015195     14
 0.013584 0.011512 0.009051 0.006288 0.003318 0.000247-0.002821-0.005778     15
-0.008524-0.010961-0.013009-0.014595-0.015666-0.016187-0.016141-0.015531     16
-0.014380-0.012729-0.010639-0.008182-0.005447-0.002530 0.000466 0.003635     17
 0.006273 0.008879 0.011163 0.013043 0.014454 0.015347 0.015690 0.015472     18
 0.014699 0.013400 0.011620 0.009424 0.006886 0.004098 0.001157-0.001833     19
-0.004767-0.007542-0.010060-0.012233-0.013985-0.015254-0.015996-0.016185     20
-0.015816-0.014902-0.013475-0.011588-0.009307-0.006715-0.003903-0.000973     21
 0.001971 0.004824 0.007482 0.009851 0.011844 0.013390 0.014431 0.014929     22
 0.014862 0.014233 0.013058 0.011380 0.009252 0.006750 0.003957 0.000972     23
-0.002104-0.005162-0.008099-0.010810-0.013203-0.015193-0.016712-0.017708     24
-0.018145-0.018011-0.017309-0.016067-0.014327-0.012154-0.009622-0.006825     25
-0.003860-0.000834 0.002146 0.004973 0.007546 0.009772 0.011572 0.012881     26
 0.013650 0.013852 0.013477 0.012537 0.011064 0.009109 0.006739 0.004038     27
 0.001100-0.001970-0.005066-0.008076-0.010895-0.013421-0.015564-0.017246     28
-0.018407-0.019003-0.019010-0.018425-0.017267-0.015573-0.013400-0.010822     29
-0.007926-0.004813-0.001588 0.001637 0.004750 0.007645 0.010221 0.012389     30
 0.014076 0.015223 0.015793 0.015765 0.015144 0.013953 0.012236 0.010055     31
 0.007489 0.004633 0.001588-0.001536-0.004623-0.007563-0.010248-0.012580     32
-0.014471-0.015851-0.016666-0.016884-0.016491-0.015497-0.013930-0.011844     33
-0.009305-0.006400-0.003226 0.000107 0.003488 0.006799 0.009926 0.012762     34
 0.015208 0.017180 0.018610 0.019467 0.019664 0.019252 0.018227 0.016624     35
 0.014499 0.011928 0.009000 0.005819 0.002496-0.000851-0.004106-0.007152     36
-0.009882-0.012200-0.014023-0.015287-0.015946-0.015978-0.015378-0.014170     37
-0.012395-0.010115-0.007412-0.004380-0.001128 0.002227 0.005567 0.008770     38
 0.011722 0.014314 0.016452 0.018056 0.019063 0.019434 0.019150 0.018215     39
 0.016655 0.014515 0.011876 0.008813 0.005430 0.001841-0.001835-0.005476     40
-0.008953-0.012156-0.014976-0.017318-0.019104-0.020277-0.020799-0.020656     41
-0.019857-0.018435-0.016442-0.013954-0.011061-0.007871-0.004498-0.001066     42
 0.002299 0.005474 0.008344 0.010801 0.012754 0.014129 0.014873 0.014954     43
 0.014363 0.013116 0.011254 0.008835 0.005942 0.002673-0.000861-0.004536     44
-0.008227-0.011803-0.015138-0.018116-0.020628-0.022585-0.023913-0.024562     45
-0.024504-0.023736-0.022276-0.020172-0.017487-0.014311-0.010744-0.006907     46
-0.002923 0.001073 0.004951 0.008582 0.011846 0.014635 0.016859 0.018445     47
 0.019344 0.019530 0.019002 0.017782 0.015918 0.013479 0.010553 0.007249     48
 0.003682-0.000017-0.003718-0.007287-0.010597-0.013529-0.015978-0.017856     49
-0.019094-0.019646-0.019489-0.018628-0.017087-0.014919-0.012195-0.009009     50
-0.005467-0.001692 0.002190 0.006044 0.009741 0.013153 0.016166 0.018676     51
 0.020600 0.021873 0.022453 0.022324 0.021492 0.019990 0.017870 0.015212     52
 0.012108 0.008669 0.005015 0.001277-0.002417-0.005935-0.009158-0.011971     53
-0.014279-0.016002-0.017085-0.017490-0.017209-0.016255-0.014667-0.012504     54
-0.009849-0.006800-0.003469 0.000018 0.003534 0.006948 0.010135 0.012973     55
 0.015358 0.017197 0.018420 0.018976 0.018840 0.018008 0.016504 0.014375     56
 0.011689 0.008537 0.005023 0.001267-0.002605-0.006457-0.010158-0.013580     57
-0.016605-0.019126-0.021055-0.022325-0.022888-0.022724-0.021835-0.020250     58
-0.018021-0.015223-0.011948-0.008307-0.004422-0.000425 0.003553 0.007374     59
 0.010914 0.014052 0.016687 0.018731 0.020120 0.020809 0.020782 0.020044     60
 0.018627 0.016584 0.013992 0.010944 0.007551 0.003935 0.000222-0.003456     61
-0.006969-0.010196-0.013025-0.015359-0.017120-0.018249-0.018712-0.018499     62
-0.017621-0.016117-0.014046-0.011488-0.008539-0.005311-0.001924 0.001496     63
 0.004822 0.007930 0.010706 0.013046 0.014865 0.016092 0.016682 0.016611     64
 0.015881 0.014514 0.012561 0.010088 0.007185 0.003955 0.000515-0.003012     65
-0.006497-0.009813-0.012839-0.015464-0.017588-0.019133-0.020036-0.020261     66
-0.019791-0.018638-0.016833-0.014435-0.011517-0.008178-0.004525-0.000679     67
 0.003234 0.007082 0.010743 0.014094 0.017029 0.019453 0.021291 0.022489     68
 0.023015 0.022861 0.022044 0.020601 0.018594 0.016104 0.013227 0.010074     69
 0.006764 0.003420 0.000167-0.002876-0.005598-0.007899-0.009699-0.010933     70
-0.011559-0.011558-0.010934-0.009714-0.007948-0.005706-0.003075-0.000156     71
 0.002937 0.006087 0.009173 0.012075 0.014683 0.016897 0.018630 0.019816     72
 0.020406 0.020376 0.019724 0.018474 0.016667 0.014372 0.011672 0.008666     73
 0.005467 0.002195-0.001027-0.004079-0.006843-0.009214-0.011101-0.012429     74
-0.013146-0.013222-0.012649-0.011449-0.009661-0.007354-0.004612-0.001541     75
 0.001742 0.005108 0.008424 0.011556 0.014374 0.016758 0.018601 0.019813     76
 0.020326 0.020097 0.019105 0.017360 0.014895 0.011771 0.008071 0.003901     77
-0.000618-0.005348-0.010146-0.014862-0.019351-0.023470-0.027093-0.030105     78
-0.032415-0.033953-0.034676-0.034570-0.033644-0.031942-0.029529-0.026496     79
-0.022953-0.019032-0.014867-0.010612-0.006409-0.002409 0.001257 0.004464     80
 0.007113 0.009120 0.010435 0.011028 0.010905 0.010096 0.008663 0.006690     81
 0.004289 0.001587-0.001271-0.004135-0.006847-0.009257-0.011215-0.012595     82
-0.013280-0.013186-0.012249-0.010442-0.007764-0.004256 0.000022 0.004964     83
 0.010449 0.016319 0.022412 0.028535 0.034504 0.040119 0.045198 0.049561     84
 0.053054 0.055542 0.056923 0.057125 0.056115 0.053897 0.050512 0.046043     85
 0.040602 0.034342 0.027435 0.020083 0.012497 0.004905-0.002473-0.009412     86
-0.015710-0.021176-0.025655-0.029014-0.031165-0.032054-0.031673-0.030052     87
-0.027267-0.023431-0.018691-0.013230-0.007251-0.000977 0.005358 0.011517     88
 0.017271 0.022398 0.026704 0.030017 0.032201 0.033158 0.032830 0.031206     89
 0.028316 0.024240 0.019089 0.013026 0.006231-0.001075-0.008664-0.016285     90
-0.023695-0.030646-0.036914-0.042285-0.046583-0.049658-0.051410-0.051772     91
-0.050731-0.048315-0.044600-0.039705-0.033787-0.027039-0.019677-0.011944     92
-0.004088 0.003634 0.010975 0.017698 0.023591 0.028468 0.032183 0.034626     93
 0.035734 0.035490 0.033926 0.031119 0.027188 0.022297 0.016637 0.010434     94
 0.003927-0.002628-0.008978-0.014868-0.020067-0.024359-0.027566-0.029540     95
-0.030181-0.029429-0.027277-0.023763-0.018974-0.013040-0.006132 0.001544     96
 0.009758 0.018255 0.026776 0.035052 0.042830 0.049862 0.055936 0.060861     97
 0.064489 0.066716 0.067479 0.066769 0.064618 0.061116 0.056384 0.050595     98
 0.043940 0.036654 0.028971 0.021154 0.013447 0.006103-0.000660-0.006630     99
-0.011648-0.015574-0.018328-0.019862-0.020187-0.019352-0.017458-0.014640    100
-0.011078-0.006971-0.002550 0.001949 0.006279 0.010206 0.013502 0.015969    101
 0.017433 0.017765 0.016871 0.014712 0.011292 0.006674 0.000955-0.005704    102
-0.013118-0.021053-0.029261-0.037462-0.045381-0.052731-0.059248-0.064679    103
-0.068809-0.071456-0.072485-0.071813-0.069410-0.065308-0.059587-0.052392    104
-0.043909-0.034382-0.024078-0.013310-0.002395 0.008327 0.018531 0.027892    105
 0.036122 0.042955 0.048177 0.051620 0.053177 0.052796 0.050495 0.046352    106
 0.040505 0.033155 0.024546 0.014975 0.004763-0.005735-0.016164-0.026155    107
```

excerpt from TR3C.Q4O

```
          ************************************************
          ************************************************
          ** QUAD4MU  A COMPUTER PROGRAM FOR EVALUATING THE **
          **          SEISMIC RESPONSE OF SOIL STRUCTURES   **
          **                  U.C.Davis, 1993               **
          **                by Martin Byrd Hudson,          **
          **                   I.M.Idriss,                  **
          **                   and Mohsen Beikae            **
          **    MODIFIED FROM QUAD4, 1973                   **
          **                by I.M.Idriss,                  **
          **                   J. Lysmer,                   **
          **                   R. Hwang and                 **
          **                   H. Bolton Seed               **
          ************************************************
          ************************************************

   TR3C: HUMBOLDT BAY, TRANSPORTER ROUTE, PG&E, 09/2002
 HORIZONTAL ACCELERATION INPUT FILE:
   TR3CI.025
 WITH FIRST LINE:
                          XMAX=  2.5250 SECTION C-C, 08/2002


1

                    NO. OF ELEMENTS =  1835
                 NO. OF NODAL POINTS =  1925
                  DEGREES OF FREEDOM =  3850
                     HALF-BANDWIDTH =    60
                CONTROLLING ELEMENT =   497
          NO. OF FIXED BNDRY CONDS. =   126
                   NO. OF ITERATIONS =    30
       TOTAL EQ. POINTS READ (KGMAX) = 12000
 LAST EQ. PTS. USED (N1EQ TO KGEQ)  =     1 12000
   INT. EQ. PTS USED (N2EQ TO N3EQ) =     1 12000
          TIME INTERVAL OF RECORDS =   0.0050  SECONDS
          STRAIN CONVERSION FACTOR =   0.6500
     DAMPING RATIO REDUCTION FACTOR =    1.000
    PREDOMINANT INPUT MOTION PERIOD =   0.2000  SECONDS
      EQ. MULT. FACTOR (HORZ. COMP.) =   1.0000
 MAXIMUM ACCEL. USED (HORZ. COMP.) =   2.5250

    0 STRESS HISTORIES REQUESTED,
    7 ACCEL HISTORIES REQUESTED,
    1 SEIS COEFF HISTORIES REQUESTED
        OUTPUT FILES ARE AS FOLLOWS:

  NODE   51,   X DIR IN FILE:  TR3C00.Q4A
  NODE   76,   X DIR IN FILE:  TR3C01.Q4A
  NODE  101,   X DIR IN FILE:  TR3C02.Q4A
  NODE  765,   X DIR IN FILE:  TR3C03.Q4A
  NODE  821,   X DIR IN FILE:  TR3C04.Q4A
  NODE  961,   X DIR IN FILE:  TR3C05.Q4A
  NODE 1114,   X DIR IN FILE:  TR3C06.Q4A
SURFACE   1,   X DIR IN FILE:  TR3C00.QSC

 SOIL DATA TAKEN FROM FILE: hbsoilnw.dat

**********************
 MATERIAL TYPE NO. 1
**********************
MODULUS:      #1 modulus for Clay PI 15 (Vucetic and Dobry 1991)
DAMPING:      damping for Clay PI 15 (Vucetic & Dobry 1991)
 ==================   ==================
   STRAIN    G/Gmax      STRAIN    DAMPING
  --------   -------    --------  --------
   0.0001     1.000       0.0001      1.70
   0.0003     1.000       0.0003      1.70
   0.0010     1.000       0.0010      1.70
   0.0032     0.940       0.0032      2.60
   0.0100     0.820       0.0100      4.50
   0.0316     0.640       0.0316      7.80
   0.1000     0.400       0.1000     11.70
   0.3160     0.210       0.3160     16.30
   1.0000     0.090       1.0000     20.20
   3.1600     0.040       3.1600     23.00
  10.0000     0.020      10.0000     23.00

  [lines skipped]

    ITERATION NO.  30


DAMPING SET AT THE FOLLOWING TWO FREQUENCIES:
THE FIRST NATURAL FREQUENCY: CIRC FREQ=       7.712; PERIOD=     0.815 SEC
  5 TIMES THE NATURAL FREQ.: CIRC FREQ=      38.558; PERIOD=     0.163 SEC


TIME REQUIRED FOR FORMATION AND TRIANGULIZATION OF MATRICES =          1.  SEC

    MODULI (ENG: KSF or SI: KN/M^2) AND DAMPING
 ELM      G-USED       G-NEW      DIF-G   DAMP-USED    DAMP-NEW  DIF-DAMP


   1      2924.6       2925.6       0.0   0.03346     0.03341       0.1
   2      2482.3       2481.1       0.0   0.05639     0.05646      -0.1
   3      1901.6       1900.1       0.1   0.08766     0.08773      -0.1
```

4	1405.0	1403.4	0.1	0.11230	0.11237	-0.1
5	1145.1	1144.4	0.1	0.12920	0.12925	0.0
6	932.2	931.6	0.1	0.14494	0.14498	0.0
7	684.1	683.8	0.0	0.16337	0.16340	0.0
8	589.0	588.8	0.0	0.17281	0.17282	0.0
9	2017.7	2016.9	0.0	0.12995	0.12998	0.0
10	1775.2	1774.5	0.0	0.14003	0.14006	0.0
11	1470.7	1472.5	-0.1	0.15269	0.15262	0.0
12	95.6	95.6	-0.1	0.27706	0.27704	0.0
13	368.9	368.9	0.0	0.25109	0.25109	0.0
14	405.2	406.4	-0.3	0.24974	0.24963	0.0
15	345.8	351.0	-1.5	0.25464	0.25418	0.2
16	136.8	136.0	0.6	0.27511	0.27526	-0.1
17	5285.4	5294.0	-0.2	0.11993	0.11978	0.1
18	4798.5	4804.3	-0.1	0.12858	0.12848	0.1
19	2348.7	2350.1	-0.1	0.16701	0.16695	0.0
20	2280.7	2281.0	0.0	0.17421	0.17419	0.0

[lines skipped]

PEAK NODAL ACCELERATION VALUES (g's)

NODE	XORD	YORD	X-ACC	AT TIME	Y-ACC	AT TIME
1	-400.0	12.0	2.0990	35.0200	0.0000	0.0000
2	-400.0	11.0	2.0980	35.0200	0.0000	0.0000
3	-400.0	9.0	2.0985	35.0200	0.0000	0.0000
4	-400.0	6.0	2.0904	35.0200	0.0000	0.0000
5	-400.0	4.0	2.0795	35.0200	0.0000	0.0000
6	-400.0	2.0	2.0636	35.0200	0.0000	0.0000
7	-400.0	0.0	2.0399	35.0200	0.0000	0.0000
8	-400.0	-2.0	1.9993	35.0150	0.0000	0.0000
9	-400.0	-4.0	1.9464	35.0150	0.0000	0.0000
10	-400.0	-6.0	1.9283	35.0150	0.0000	0.0000
11	-400.0	-9.0	1.8928	35.0150	0.0000	0.0000
12	-400.0	-12.0	1.8465	35.0150	0.0000	0.0000
13	-400.0	-17.0	2.3973	23.1700	0.0000	0.0000
14	-400.0	-21.0	2.5280	34.5400	0.0000	0.0000
15	-400.0	-25.0	2.6427	34.5350	0.0000	0.0000
16	-400.0	-29.0	2.6383	34.5300	0.0000	0.0000
17	-400.0	-33.0	2.7057	34.5000	0.0000	0.0000
18	-400.0	-38.0	2.6964	34.5000	0.0000	0.0000
19	-400.0	-43.0	2.6586	34.5000	0.0000	0.0000
20	-400.0	-48.0	2.5312	34.5000	0.0000	0.0000

[lines skipped]

PEAK ELEMENTS STRESSES (ENG: PSF or SI: N/M^2) AND STRAINS

ELM	SIG-X	SIG-Y	SIG-XY	EPS-MAX	AT TIME
1	358.8	5.0	150.1	0.008	23.030
2	294.8	8.1	563.2	0.023	35.050
3	222.2	14.3	1231.3	0.065	35.050
4	205.9	21.0	1884.9	0.134	35.050
5	168.3	25.6	2393.3	0.209	35.050
6	139.0	31.0	2887.8	0.310	35.050
7	105.9	37.6	3365.0	0.492	35.050
8	94.9	43.9	3827.1	0.650	35.050
9	390.5	45.2	4294.9	0.213	35.050
10	356.8	48.6	4862.4	0.274	35.050
11	307.3	54.9	5515.0	0.375	35.050
12	52.3	73.2	6303.7	6.597	35.055
13	50.2	78.7	6431.6	1.744	35.050
14	61.4	82.7	6602.7	1.629	23.020
15	66.8	87.1	6962.5	2.014	23.190
16	73.6	88.5	7951.3	5.812	23.185
17	149.3	85.7	8716.1	0.165	23.165
18	130.0	81.7	9837.3	0.205	23.145
19	54.1	81.4	11120.8	0.473	23.140
20	56.2	81.2	12387.3	0.543	23.135

[lines skipped]

1 MAX & MIN SEISMIC COEFFICIENTS

SURFACE	WEIGHT(LB or N)	X-DIRECTION NEGATIVE	X-DIRECTION POSITIVE
1	259061.7500	-1.7868	2.0514

ITERATION CYCLE NO. 30 AVE OVERALL DAMP = 0.185

TIME REQUIRED FOR 12000 STEPS = 211. SEC

****
** END OF JOB **
****

excerpt from TR3C00.QSC

```
TR3C: HUMBOLDT BAY, TRANSPORTER ROUTE, PG&E, 09/2002
   Seismic Coefficient Surface History
 Time Step =       0.005 Sec
  Surface   1

  0.000000  0.000000  0.000001  0.000002  0.000005  0.000009  0.000016  0.000024
  0.000035  0.000049  0.000065  0.000083  0.000103  0.000124  0.000147  0.000171
  0.000196  0.000221  0.000248  0.000277  0.000308  0.000343  0.000385  0.000434
  0.000494  0.000565  0.000652  0.000755  0.000876  0.001018  0.001181  0.001365
  0.001570  0.001794  0.002035  0.002290  0.002554  0.002823  0.003092  0.003352
  0.003598  0.003823  0.004020  0.004182  0.004304  0.004379  0.004403  0.004374
  0.004290  0.004149  0.003955  0.003708  0.003415  0.003080  0.002711  0.002316
  0.001904  0.001485  0.001069  0.000666  0.000285 -0.000064 -0.000374 -0.000637
 -0.000849 -0.001005 -0.001103 -0.001144 -0.001128 -0.001060 -0.000944 -0.000787
 -0.000598 -0.000384 -0.000157  0.000073  0.000297  0.000504  0.000685  0.000831
  0.000936  0.000992  0.000997  0.000947  0.000842  0.000684  0.000476  0.000223
 -0.000069 -0.000392 -0.000736 -0.001093 -0.001452 -0.001803 -0.002136 -0.002443
 -0.002715 -0.002945 -0.003129 -0.003262 -0.003343 -0.003373 -0.003352 -0.003286
 -0.003179 -0.003039 -0.002875 -0.002694 -0.002508 -0.002326 -0.002158 -0.002014
 -0.001902 -0.001830 -0.001804 -0.001828 -0.001904 -0.002032 -0.002212 -0.002439
 -0.002707 -0.003010 -0.003339 -0.003683 -0.004031 -0.004372 -0.004694 -0.004986
 -0.005236 -0.005436 -0.005577 -0.005651 -0.005655 -0.005585 -0.005441 -0.005224
 -0.004939 -0.004591 -0.004189 -0.003742 -0.003260 -0.002757 -0.002244 -0.001735
 -0.001242 -0.000777 -0.000352  0.000025  0.000344  0.000600  0.000789  0.000909
  0.000961  0.000947  0.000872  0.000743  0.000568  0.000358  0.000123 -0.000124
 -0.000372 -0.000610 -0.000825 -0.001008 -0.001149 -0.001242 -0.001280 -0.001261
 -0.001182 -0.001045 -0.000853 -0.000611 -0.000326 -0.000005  0.000340  0.000699
  0.001062  0.001415  0.001749  0.002052  0.002315  0.002530  0.002690  0.002790
  0.002827  0.002801  0.002713  0.002568  0.002370  0.002126  0.001846  0.001540
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 -0.000670 -0.000704 -0.000682 -0.000607 -0.000482 -0.000315 -0.000113  0.000114
  0.000357  0.000604  0.000844  0.001066  0.001258  0.001413  0.001520  0.001573
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 -0.003511 -0.003693 -0.003812 -0.003868 -0.003862 -0.003799 -0.003683 -0.003522
 -0.003325 -0.003101 -0.002863 -0.002621 -0.002387 -0.002172 -0.001986 -0.001839
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 -0.004367 -0.003991 -0.003581 -0.003148 -0.002704 -0.002261 -0.001832 -0.001428
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 -0.000071 -0.000190 -0.000344 -0.000521 -0.000711 -0.000900 -0.001078 -0.001232
 -0.001350 -0.001424 -0.001445 -0.001405 -0.001302 -0.001132 -0.000896 -0.000597
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  0.005188  0.005073  0.004898  0.004672  0.004407  0.004113  0.003804  0.003491
  0.003187  0.002905  0.002656  0.002449  0.002291  0.002190  0.002148  0.002168
  0.002246  0.002381  0.002565  0.002791  0.003049  0.003328  0.003615  0.003897
  0.004161  0.004394  0.004584  0.004719  0.004790  0.004789  0.004711  0.004553
  0.004315  0.003998  0.003606  0.003148  0.002631  0.002067  0.001467  0.000845
  0.000216 -0.000408 -0.001012 -0.001584 -0.002111 -0.002585 -0.002996 -0.003339
 -0.003611 -0.003812 -0.003942 -0.004006 -0.004011 -0.003965 -0.003879 -0.003764
 -0.003634 -0.003501 -0.003378 -0.003278 -0.003213 -0.003193 -0.003226 -0.003319
 -0.003475 -0.003697 -0.003983 -0.004329 -0.004729 -0.005174 -0.005654 -0.006155
 -0.006666 -0.007171 -0.007655 -0.008104 -0.008503 -0.008840 -0.009104 -0.009286
 -0.009378 -0.009376 -0.009279 -0.009087 -0.008806 -0.008441 -0.008001 -0.007498
 -0.006944 -0.006354 -0.005743 -0.005126 -0.004520 -0.003939 -0.003396 -0.002903
 -0.002472 -0.002108 -0.001818 -0.001604 -0.001466 -0.001400 -0.001400 -0.001459
 -0.001567 -0.001710 -0.001877 -0.002051 -0.002220 -0.002368 -0.002482 -0.002549
 -0.002558 -0.002501 -0.002371 -0.002164 -0.001878 -0.001515 -0.001080 -0.000578
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  0.006363  0.006189  0.005959  0.005683  0.005374  0.005047  0.004715  0.004392
  0.004089  0.003820  0.003592  0.003415  0.003293  0.003229  0.003224  0.003275
  0.003378  0.003526  0.003709  0.003917  0.004137  0.004358  0.004565  0.004745
  0.004886  0.004976  0.005006  0.004968  0.004855  0.004665  0.004396  0.004052
  0.003636  0.003156  0.002622  0.002044  0.001437  0.000815  0.000192 -0.000415
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 -0.003159 -0.003045 -0.002854 -0.002593 -0.002274 -0.001911 -0.001517 -0.001109
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  0.000990  0.000885  0.000705  0.000457  0.000149 -0.000210 -0.000607 -0.001030
 -0.001464 -0.001896 -0.002312 -0.002700 -0.003047 -0.003344 -0.003582 -0.003755
 -0.003861 -0.003898 -0.003867 -0.003773 -0.003621 -0.003421 -0.003181 -0.002914
 -0.002630 -0.002343 -0.002065 -0.001808 -0.001583 -0.001399 -0.001263 -0.001183
 -0.001160 -0.001195 -0.001288 -0.001434 -0.001626 -0.001856 -0.002114 -0.002388
 -0.002665 -0.002932 -0.003175 -0.003381 -0.003537 -0.003632 -0.003658 -0.003606
 -0.003471 -0.003251 -0.002946 -0.002558 -0.002092 -0.001556 -0.000960 -0.000315
  0.000367  0.001071  0.001782  0.002486  0.003169  0.003818  0.004419  0.004964
  0.005443  0.005851  0.006182  0.006437  0.006617  0.006724  0.006765  0.006748
  0.006681  0.006578  0.006447  0.006302  0.006154  0.006016  0.005897  0.005807
  0.005754  0.005744  0.005779  0.005863  0.005993  0.006167  0.006381  0.006626
  0.006896  0.007179  0.007467  0.007748  0.008011  0.008245  0.008442  0.008593
  0.008691  0.008732  0.008712  0.008631  0.008489  0.008292  0.008043  0.007751
  0.007423  0.007070  0.006702  0.006330  0.005965  0.005616  0.005293  0.005003
  0.004752  0.004543  0.004378  0.004256  0.004174  0.004126  0.004104  0.004098
  0.004096  0.004086  0.004054  0.003986  0.003868  0.003686  0.003430  0.003089
  0.002653  0.002119  0.001481  0.000741 -0.000098 -0.001031 -0.002050 -0.003141
 -0.004291 -0.005484 -0.006703 -0.007927 -0.009138 -0.010317 -0.011444 -0.012501
 -0.013472 -0.014343 -0.015103 -0.015741 -0.016253 -0.016634 -0.016886 -0.017011
 -0.017015 -0.016905 -0.016692 -0.016386 -0.016001 -0.015550 -0.015044 -0.014497
 -0.013920 -0.013323 -0.012713 -0.012095 -0.011473 -0.010847 -0.010214 -0.009571
 -0.008911 -0.008224 -0.007501 -0.006730 -0.005901 -0.005001 -0.004021 -0.002952
 -0.001786 -0.000519  0.000851  0.002322  0.003889  0.005542  0.007271  0.009059
  0.010886  0.012730  0.014568  0.016372  0.018116  0.019773  0.021316  0.022719
  0.023959  0.025016  0.025871  0.026513  0.026932  0.027127  0.027097  0.026849
  0.026394  0.025749  0.024935  0.023975  0.022896  0.021728  0.020501  0.019246
  0.017993  0.016772  0.015608  0.014525  0.013541  0.012674  0.011931  0.011318
  0.010834  0.010475  0.010229  0.010081  0.010013  0.010001  0.010020  0.010043
  0.010044  0.009993  0.009867  0.009640  0.009293  0.008808  0.008172  0.007379
  0.006425  0.005314  0.004056  0.002662  0.001153 -0.000449 -0.002118 -0.003823
 -0.005534 -0.007219 -0.008845 -0.010382 -0.011801 -0.013075 -0.014182 -0.015106
 -0.015832 -0.016355 -0.016671 -0.016785 -0.016705 -0.016446 -0.016027 -0.015469
 -0.014797 -0.014039 -0.013225 -0.012381 -0.011536 -0.010716 -0.009944 -0.009239
 -0.008617 -0.008087 -0.007656 -0.007324 -0.007085 -0.006930 -0.006843 -0.006805
 -0.006794 -0.006784 -0.006750 -0.006662 -0.006495 -0.006221 -0.005817 -0.005264
 -0.004543 -0.003644 -0.002560 -0.001290  0.000162  0.001786  0.003564  0.005477
  0.007497  0.009598  0.011746  0.013907  0.016045  0.018123  0.020109  0.021970
  0.023677  0.025202  0.026525  0.027629  0.028502  0.029139  0.029540  0.029708
  0.029654  0.029391  0.028937  0.028314  0.027543  0.026648  0.025655  0.024587
```

Attachment F

SPECTRAD

Input and Output Excerpts

(see Table 8-6 for listing of files)

SPECTRA1.INP

```
TR1C01.Q4A
0
TR1C01.Q4A
TR1C01A.050
(8F10.6)
4 12000 1.0 0.005 1 0.05
TR3C01.Q4A
0
TR3C01.Q4A
TR3C01A.050
(8F10.6)
4 12000 1.0 0.005 1 0.05
```

SPECTRA2.INP

```
S1CC.AC8
0
S1CC.AC8
S1CC.050
(8E15.7)
2 15999 1.0 0.005 1 0.05
S3CC.AC8
0
S3CC.AC8
S3CC.050
(8E15.7)
2 15999 1.0 0.005 1 0.05
```

SPECTRA3.INP

```
TR1C00.Q4A
0
TR1C00.Q4A
TR1C00A.050
(8F10.6)
4 12000 1.0 0.005 1 0.05
TR3C00.Q4A
0
TR3C00.Q4A
TR3C00A.050
(8F10.6)
4 12000 1.0 0.005 1 0.05
```

S1CC.050

S1CC.050
Set1:
15999 points 0.005 dt parameters are t,sd,sv,psv,sa,sr
97

1	0.01000	0.00424	0.36240	2.66569	1.70586	1.02250
2	0.01500	0.00943	1.12846	3.95203	1.68695	1.01116
3	0.02000	0.01678	1.28694	5.27270	1.68896	1.01236
4	0.02500	0.02594	1.48340	6.51898	1.67025	1.00115
5	0.03000	0.03766	2.16668	7.88799	1.68415	1.00948
6	0.03500	0.05098	3.81005	9.15228	1.67534	1.00420
7	0.04000	0.06676	4.60543	10.48662	1.68007	1.00704
8	0.04200	0.07623	4.43469	11.40405	1.74070	1.04338
9	0.04400	0.08264	4.95536	11.80071	1.71739	1.02941
10	0.04600	0.08985	4.51109	12.27266	1.70972	1.02481
11	0.04800	0.09838	4.71765	12.87781	1.71928	1.03054
12	0.05000	0.10751	5.12165	13.50954	1.73038	1.03720
13	0.05500	0.12839	7.51774	14.66684	1.70938	1.02460
14	0.06000	0.15747	7.94611	16.49047	1.76149	1.05584
15	0.06500	0.18879	10.10117	18.24887	1.79941	1.07857
16	0.07000	0.22721	13.59237	20.39399	1.86751	1.11939
17	0.07500	0.25161	13.20151	21.07891	1.80054	1.07925
18	0.08000	0.29879	14.69405	23.46683	1.87740	1.12532
19	0.08500	0.32782	16.27116	24.23270	1.82468	1.09372
20	0.09000	0.38715	19.61784	27.02837	1.92314	1.15273
21	0.09500	0.46639	18.83205	30.84639	2.08598	1.25034
22	0.10000	0.52118	22.13347	32.74685	2.09878	1.25802
23	0.11000	0.60898	22.66736	34.78502	2.02966	1.21658
24	0.12000	0.77524	27.21112	40.59158	2.16508	1.29775
25	0.13000	0.94225	31.86408	45.54116	2.24985	1.34857
26	0.14000	1.07973	38.03613	48.45831	2.22979	1.33654
27	0.15000	1.32760	44.34030	55.61029	2.38266	1.42817
28	0.16000	1.45787	50.53853	57.25034	2.29662	1.37660
29	0.17000	1.83986	48.63523	68.00112	2.57021	1.54059
30	0.18000	2.18049	53.55482	76.11331	2.71612	1.62804
31	0.19000	2.44590	58.57046	80.88432	2.73575	1.63981
32	0.20000	2.62526	62.67080	82.47511	2.65144	1.58928
33	0.22000	3.25367	75.72450	92.92465	2.70997	1.62436
34	0.24000	4.26902	107.14139	111.76256	2.99098	1.79280
35	0.26000	5.51990	131.40338	133.39444	3.30459	1.98078
36	0.28000	6.50419	125.94003	145.95370	3.34946	2.00767
37	0.30000	7.52492	104.12332	157.60156	3.37393	2.02234
38	0.32000	8.99561	115.55287	176.62834	3.54536	2.12510
39	0.34000	10.33430	144.51660	190.97740	3.61037	2.16406
40	0.36000	11.85777	160.37582	206.95711	3.69405	2.21422
41	0.38000	13.82229	182.56612	228.54745	3.86691	2.31783
42	0.40000	15.39341	216.61101	241.79916	3.88966	2.33147
43	0.42000	16.70307	238.81120	249.87729	3.82530	2.29289
44	0.44000	18.20437	250.47702	259.95779	3.79713	2.27601
45	0.46000	22.10240	218.94986	301.89880	4.21979	2.52935
46	0.48000	23.70653	212.51624	310.31775	4.15592	2.49107
47	0.50000	25.88282	228.08356	325.25308	4.17949	2.50519
48	0.55000	28.71230	278.99075	328.00854	3.83275	2.29736
49	0.60000	34.33649	354.17337	359.57083	3.85639	2.31153
50	0.65000	41.06744	356.72165	396.97589	3.92719	2.35397
51	0.70000	49.59735	377.66327	445.18478	4.09054	2.45188
52	0.75000	54.47570	354.96664	456.37454	3.91461	2.34643
53	0.80000	62.35158	395.77444	489.70816	3.93961	2.36141
54	0.85000	70.62992	458.20224	522.09515	3.95257	2.36918
55	0.90000	78.01536	515.90106	544.64996	3.89095	2.33224
56	0.95000	79.79324	499.19333	527.74280	3.57097	2.14045
57	1.00000	94.31651	504.98669	592.60809	3.80801	2.28253
58	1.10000	113.25320	665.54218	646.90076	3.78417	2.26824
59	1.20000	137.65614	682.17780	720.76587	3.86699	2.31788
60	1.30000	164.02608	828.15387	792.77405	3.92579	2.35313
61	1.40000	184.16927	843.13617	826.54974	3.80246	2.27920
62	1.50000	209.62582	931.69116	878.07861	3.76679	2.25782
63	1.60000	223.15634	939.97168	876.33289	3.52439	2.11252
64	1.70000	257.48169	998.52191	951.65009	3.60611	2.16151
65	1.80000	275.42258	967.80609	961.40619	3.44114	2.06262
66	1.90000	289.34964	935.43036	956.86176	3.24469	1.94487
67	2.00000	320.09787	1024.35925	1005.61713	3.24042	1.94232
68	2.20000	349.04321	1188.72632	996.86505	2.91912	1.74972
69	2.40000	345.21188	1050.11731	903.76257	2.43108	1.45719
70	2.60000	415.12836	1102.37341	1003.20325	2.48755	1.49104
71	2.80000	446.46988	1067.82117	1001.87604	2.30798	1.38341
72	3.00000	476.67511	1108.72144	998.34607	2.14379	1.28499
73	3.20000	534.83887	1170.94153	1050.15369	2.11392	1.26709
74	3.40000	589.07428	1193.66199	1088.60669	2.06397	1.23715
75	3.60000	623.17865	1145.50757	1087.65198	1.94586	1.16635
76	3.80000	659.90210	1077.66431	1091.12817	1.84939	1.10853
77	4.00000	691.27075	1027.86426	1085.84558	1.74741	1.04740
78	4.20000	701.75433	1052.29761	1049.82214	1.60945	0.96470
79	4.40000	700.27374	1060.83301	999.98853	1.46405	0.87755
80	4.60000	712.11096	1056.99011	972.67944	1.36162	0.81616
81	4.80000	728.45789	1112.69788	953.54913	1.27673	0.76527
82	5.00000	751.02454	1133.51563	943.76532	1.21387	0.72760
83	5.50000	748.26880	1075.82947	854.82025	1.00213	0.60068
84	6.00000	722.43866	996.51514	756.53601	0.81227	0.48687
85	6.50000	766.95892	908.46509	741.37616	0.73559	0.44092
86	7.00000	822.58777	873.80682	738.35309	0.68478	0.41046
87	7.50000	828.78003	818.94879	694.31714	0.60287	0.36136
88	8.00000	828.75964	778.60773	650.90631	0.53075	0.31813
89	8.50000	841.23773	760.09186	621.84149	0.47812	0.28658
90	9.00000	853.69446	750.83490	595.99115	0.43345	0.25981
91	9.50000	848.63818	737.84949	561.27905	0.38746	0.23224
92	10.00000	818.58038	715.41718	514.32922	0.33794	0.20256
93	11.00000	752.94299	718.00922	430.08002	0.25862	0.15502
94	12.00000	778.16113	709.75861	407.44421	0.22459	0.13462
95	13.00000	776.27209	680.55328	375.18933	0.19071	0.11431
96	14.00000	762.82599	647.33057	342.35550	0.16182	0.09700
97	15.00000	748.14197	640.59607	313.38098	0.13876	0.08317

S3CC.050

S3CC.050
Set3:
15999 points 0.005 dt parameters are t,sd,sv,psv,sa,mr
97

1	0.01000	0.00407	0.17999	2.55861	1.63894	1.00363
2	0.01500	0.00914	0.48247	3.82894	1.63501	1.00122
3	0.02000	0.01642	1.49100	5.15705	1.65190	1.01156
4	0.02500	0.02597	1.38000	6.52707	1.67277	1.02434
5	0.03000	0.03690	1.51223	7.72859	1.64979	1.01027
6	0.03500	0.04969	2.20843	8.92073	1.63264	0.99977
7	0.04000	0.06573	4.42396	10.32521	1.65396	1.01283
8	0.04200	0.07239	4.73754	10.82968	1.65132	1.01121
9	0.04400	0.07972	4.57190	11.38374	1.65793	1.01526
10	0.04600	0.08746	4.03526	11.94689	1.66347	1.01865
11	0.04800	0.09613	4.19428	12.58342	1.68006	1.02881
12	0.05000	0.10474	4.26656	13.16208	1.68795	1.03363
13	0.05500	0.12966	4.48820	14.81178	1.72344	1.05537
14	0.06000	0.15886	4.93534	16.63528	1.77893	1.08935
15	0.06500	0.17893	6.52502	17.29646	1.70532	1.04427
16	0.07000	0.20155	8.01008	18.09116	1.65609	1.01413
17	0.07500	0.24135	11.24976	20.21956	1.73000	1.05939
18	0.08000	0.27271	13.47621	21.41886	1.71675	1.05128
19	0.08500	0.31358	14.59441	23.17950	1.74882	1.07091
20	0.09000	0.36127	15.59604	25.22135	1.79249	1.09766
21	0.09500	0.41387	16.76602	27.37279	1.85033	1.13307
22	0.10000	0.47403	18.16407	29.78402	1.90959	1.16936
23	0.11000	0.60765	24.02493	34.70906	2.02405	1.23945
24	0.12000	0.74811	27.87101	39.17080	2.09105	1.28048
25	0.13000	0.90724	33.17875	43.84907	2.15974	1.32255
26	0.14000	1.10037	32.76777	49.38461	2.25836	1.38294
27	0.15000	1.30982	38.47551	54.86579	2.34739	1.43745
28	0.16000	1.59453	42.18465	62.61713	2.51127	1.53780
29	0.17000	1.99081	42.89137	73.58006	2.77477	1.69917
30	0.18000	2.11723	47.23977	73.90511	2.63161	1.61150
31	0.19000	2.49164	55.48930	82.39701	2.78507	1.70547
32	0.20000	2.84952	59.14955	89.52031	2.87652	1.76147
33	0.22000	3.50231	71.99142	100.02570	2.91995	1.78807
34	0.24000	4.46803	86.21294	116.97272	3.13155	1.91764
35	0.26000	5.56098	94.18864	134.38719	3.32092	2.03361
36	0.28000	6.89924	128.93840	154.81863	3.55083	2.17440
37	0.30000	8.77813	139.79877	183.84877	3.93742	2.41113
38	0.32000	9.73755	129.55070	191.19640	3.83839	2.35048
39	0.34000	10.61396	135.81387	196.14543	3.70754	2.27036
40	0.36000	11.88946	149.78423	207.51025	3.70438	2.26842
41	0.38000	13.27617	173.61707	219.51749	3.71262	2.27347
42	0.40000	14.94219	187.43405	234.71132	3.77055	2.30894
43	0.42000	16.26750	210.37854	243.36121	3.72385	2.28035
44	0.44000	17.92181	219.38771	255.92279	3.74054	2.29057
45	0.46000	19.02500	229.92368	259.86441	3.63148	2.22378
46	0.48000	21.74136	247.63783	284.59375	3.81144	2.33398
47	0.50000	23.37008	271.31503	293.67709	3.77999	2.31472
48	0.55000	26.30332	269.77603	300.48837	3.51324	2.15138
49	0.60000	32.19749	320.32312	337.17136	3.61544	2.21396
50	0.65000	41.53804	297.77554	401.52493	3.97043	2.43134
51	0.70000	48.05046	364.00516	431.29993	3.95803	2.42375
52	0.75000	53.85356	420.86557	451.16254	3.86426	2.36633
53	0.80000	60.98380	475.94940	478.96564	3.85178	2.35868
54	0.85000	66.35065	491.55292	490.46283	3.71433	2.27452
55	0.90000	75.52803	524.06769	527.28516	3.77321	2.31057
56	0.95000	84.69800	587.88263	560.18231	3.79725	2.32529
57	1.00000	92.01063	622.75409	578.11981	3.72403	2.28046
58	1.10000	112.23817	682.35126	641.10297	3.75455	2.29914
59	1.20000	135.68370	788.94336	710.43817	3.81091	2.33366
60	1.30000	155.73064	766.68085	752.68036	3.73174	2.28517
61	1.40000	185.70148	745.89056	833.42627	3.82475	2.34214
62	1.50000	216.73026	860.57977	907.83759	3.89493	2.38511
63	1.60000	241.19075	898.69690	947.15387	3.80682	2.33115
64	1.70000	267.25229	905.68805	987.76215	3.73734	2.28860
65	1.80000	282.96439	928.21747	987.73206	3.53185	2.16277
66	1.90000	299.35184	941.09021	989.93842	3.35432	2.05406
67	2.00000	320.62982	966.04529	1007.28833	3.24291	1.98583
68	2.20000	346.23346	951.88654	988.84045	2.89195	1.77092
69	2.40000	365.59750	941.55664	957.13202	2.56888	1.57309
70	2.60000	406.00262	1037.10986	981.14990	2.42832	1.48701
71	2.80000	442.25305	1038.66138	992.41351	2.28290	1.39796
72	3.00000	467.29645	1036.92761	978.70343	2.10096	1.28655
73	3.20000	524.99548	1105.00171	1030.82617	2.07399	1.27003
74	3.40000	565.28558	1088.34924	1044.64526	1.97882	1.21175
75	3.60000	596.85156	1075.60559	1041.70251	1.86305	1.14086
76	3.80000	632.44421	1032.74585	1045.72742	1.77130	1.08468
77	4.00000	672.57397	1017.21216	1056.47681	1.70101	1.04164
78	4.20000	708.22345	1073.36560	1059.49988	1.62629	0.99588
79	4.40000	731.48004	1125.30261	1044.55103	1.53107	0.93757
80	4.60000	738.78693	1159.76978	1009.11639	1.41386	0.86579
81	4.80000	760.23969	1166.01550	995.15143	1.33630	0.81830
82	5.00000	785.41827	1141.89783	986.98572	1.27163	0.77870
83	5.50000	797.70825	1094.74072	911.29974	1.07058	0.65558
84	6.00000	765.47913	1053.22888	801.60791	0.86055	0.52697
85	6.50000	742.93115	996.66034	718.14984	0.71237	0.43623
86	7.00000	761.19855	961.24792	683.25024	0.62819	0.38468
87	7.50000	782.08478	954.02118	655.19781	0.56426	0.34553
88	8.00000	797.65686	963.48279	626.47827	0.50631	0.31004
89	8.50000	819.03632	974.28931	605.43024	0.46120	0.28242
90	9.00000	818.61273	976.38477	571.49951	0.41147	0.25197
91	9.50000	794.84961	967.90405	525.70392	0.35852	0.21955
92	10.00000	751.79382	953.83453	472.36600	0.30626	0.18754
93	11.00000	727.32202	901.76404	415.44534	0.24427	0.14958
94	12.00000	743.88904	839.29944	389.49939	0.21559	0.13202
95	13.00000	766.85712	782.23224	370.63885	0.19033	0.11655
96	14.00000	774.52014	735.32635	347.60382	0.16659	0.10201
97	15.00000	775.42365	698.63159	324.80872	0.14611	0.08947

TR1C01A.050

TR1C01A.050
TR1C: HUMBOLDT BAY, TRANSPORTER ROUTE, PG&E, 09/2002
12000 points 0.005 dt parameters are t,sd,sv,psv,sa,mr
97

1	0.01000	0.00490	0.09312	3.07771	1.97085	1.01618
2	0.01500	0.01086	0.16214	4.54895	1.94213	1.00137
3	0.02000	0.01925	0.27645	6.04759	1.93661	0.99853
4	0.02500	0.03002	0.41196	7.54516	1.93326	0.99680
5	0.03000	0.04333	0.58346	9.07428	1.93740	0.99893
6	0.03500	0.05893	0.80782	10.57859	1.93588	0.99815
7	0.04000	0.07714	1.05210	12.11731	1.94025	1.00040
8	0.04200	0.08512	1.16505	12.73377	1.94194	1.00127
9	0.04400	0.09349	1.27316	13.35028	1.94342	1.00204
10	0.04600	0.10225	1.40534	13.96622	1.94453	1.00261
11	0.04800	0.11139	1.53726	14.58096	1.94552	1.00312
12	0.05000	0.12092	1.67110	15.19495	1.94674	1.00375
13	0.05500	0.14655	2.01744	16.74184	1.94996	1.00541
14	0.06000	0.17479	2.42993	18.30348	1.95425	1.00762
15	0.06500	0.20560	2.88086	19.87452	1.95884	1.00999
16	0.07000	0.23904	3.36166	21.45577	1.96377	1.01253
17	0.07500	0.27512	3.92962	23.04866	1.96903	1.01524
18	0.08000	0.31391	4.51459	24.65464	1.97461	1.01812
19	0.08500	0.35547	5.17509	26.27621	1.98065	1.02123
20	0.09000	0.39991	5.88043	27.91901	1.98753	1.02478
21	0.09500	0.44727	6.65977	29.58195	1.99505	1.02866
22	0.10000	0.49770	7.51554	31.27169	2.00355	1.03304
23	0.11000	0.60829	9.47056	34.74519	2.02365	1.04340
24	0.12000	0.73333	11.82356	38.39695	2.04982	1.05690
25	0.13000	0.87553	14.74523	42.31607	2.08488	1.07497
26	0.14000	1.04043	18.45482	46.69429	2.13631	1.10149
27	0.15000	1.24248	23.50678	52.04498	2.22454	1.14698
28	0.16000	1.53403	31.48627	60.24125	2.41423	1.24479
29	0.17000	1.98006	42.06763	73.18219	2.76296	1.42460
30	0.18000	2.19753	45.44719	76.70840	2.73309	1.40919
31	0.19000	2.61895	56.15680	86.60719	2.92760	1.50948
32	0.20000	3.46586	84.82983	108.88321	3.49981	1.80452
33	0.22000	4.09913	96.28816	117.07076	3.41331	1.75992
34	0.24000	5.64102	130.08618	147.68163	3.96296	2.04332
35	0.26000	7.63812	172.27887	184.58359	4.56688	2.35471
36	0.28000	9.32494	174.58798	209.02676	4.79618	2.47293
37	0.30000	9.95131	139.10397	208.41985	4.46273	2.30100
38	0.32000	11.63752	156.31689	228.50224	4.58791	2.36555
39	0.34000	12.84668	176.81361	237.40607	4.48772	2.31389
40	0.36000	14.09230	197.41614	245.95694	4.39273	2.26491
41	0.38000	16.51773	230.79260	273.11572	4.62198	2.38311
42	0.40000	19.08163	268.50070	299.73361	4.81785	2.48411
43	0.42000	20.61566	286.54221	308.40952	4.72411	2.43577
44	0.44000	22.13897	304.53400	316.14374	4.62107	2.38265
45	0.46000	25.92916	269.08301	354.16895	4.94825	2.55134
46	0.48000	27.98892	250.82458	366.37411	4.90766	2.53041
47	0.50000	30.54596	268.76392	383.85187	4.93494	2.54448
48	0.55000	33.08741	330.11508	377.98969	4.41687	2.27736
49	0.60000	41.98359	430.36880	439.65115	4.71429	2.43071
50	0.65000	47.62388	435.76050	460.35333	4.55327	2.34768
51	0.70000	64.32147	509.35516	577.34814	5.30551	2.73555
52	0.75000	69.84112	490.59109	585.09961	5.01882	2.58773
53	0.80000	79.71034	523.70184	626.04358	5.03627	2.59672
54	0.85000	90.58872	598.12561	669.63025	5.07065	2.61445
55	0.90000	100.41508	680.27423	701.02954	5.01102	2.58370
56	0.95000	100.61058	659.95160	665.42621	4.50274	2.32166
57	1.00000	106.03497	627.09637	666.23743	4.28106	2.20733
58	1.10000	129.68929	770.33978	740.78345	4.33561	2.23546
59	1.20000	151.56076	761.72870	793.57025	4.25748	2.19518
60	1.30000	179.35966	908.97589	866.88464	4.29284	2.21341
61	1.40000	199.66898	917.69000	896.11224	4.12295	2.12581
62	1.50000	222.95346	1013.43359	933.90527	4.00796	2.06652
63	1.60000	236.79453	1016.65930	929.88989	3.74096	1.92885
64	1.70000	271.58307	1050.79724	1003.76868	3.80237	1.96052
65	1.80000	289.58640	1012.87231	1010.84723	3.61925	1.86610
66	1.90000	302.54437	984.76385	1000.49597	3.39458	1.75026
67	2.00000	331.88193	1081.31470	1042.63782	3.35996	1.73241
68	2.20000	354.23242	1228.19250	1011.68542	2.96511	1.52882
69	2.40000	354.83594	1081.40808	928.95831	2.49967	1.28884
70	2.60000	425.66040	1125.16663	1028.65503	2.55170	1.31567
71	2.80000	455.46765	1085.51233	1022.06702	2.35442	1.21395
72	3.00000	484.91995	1136.64246	1015.61401	2.18087	1.12447
73	3.20000	543.79742	1185.76294	1067.74377	2.15156	1.10935
74	3.40000	597.21912	1221.64709	1103.65833	2.09224	1.07877
75	3.60000	630.55573	1180.68262	1100.52734	1.97003	1.01575
76	3.80000	665.43182	1108.52136	1100.27148	1.86399	0.96108
77	4.00000	696.07709	1030.12671	1093.39539	1.76015	0.90754
78	4.20000	705.97614	1089.23132	1056.13794	1.61848	0.83449
79	4.40000	701.68469	1088.87170	1002.00336	1.46836	0.75709
80	4.60000	712.68134	1098.19678	973.45850	1.36161	0.70205
81	4.80000	732.90369	1140.16748	959.36865	1.28429	0.66219
82	5.00000	757.58301	1154.58630	952.00690	1.22498	0.63161
83	5.50000	752.15570	1090.13049	859.26062	1.00710	0.51926
84	6.00000	721.29608	1004.28186	755.33954	0.81260	0.41898
85	6.50000	776.59210	929.54932	750.68799	0.74494	0.38410
86	7.00000	831.69458	895.65814	746.52734	0.69221	0.35691
87	7.50000	836.24054	840.94830	700.56726	0.60922	0.31412
88	8.00000	834.93359	800.64587	655.75531	0.53611	0.27642
89	8.50000	846.11353	782.01202	625.44568	0.48197	0.24851
90	9.00000	857.15839	772.57257	598.40942	0.43582	0.22471
91	9.50000	850.39191	759.37384	562.43896	0.38833	0.20022
92	10.00000	818.17596	736.77478	514.07513	0.33792	0.17423
93	11.00000	758.72028	733.44897	433.38000	0.26223	0.13521
94	12.00000	781.27692	720.82434	409.07565	0.22753	0.11732
95	13.00000	778.77020	688.30170	376.39673	0.19321	0.09962
96	14.00000	765.02777	668.25714	343.34366	0.16397	0.08454
97	15.00000	750.23749	664.13397	314.25876	0.14071	0.07255

TR3C01A.050

TR3C01A.050
TR3C: HUMBOLDT BAY, TRANSPORTER ROUTE, PG4E, 09/2002
12000 points 0.005 dt parameters are t,sd,sv,psv,sa,mr
97

1	0.01000	0.00520	0.10338	3.26985	2.09426	1.00049
2	0.01500	0.01172	0.19641	4.90850	2.09604	1.00135
3	0.02000	0.02082	0.36241	6.54233	2.09517	1.00093
4	0.02500	0.03257	0.53201	8.18593	2.09726	1.00193
5	0.03000	0.04693	0.76644	9.82937	2.09857	1.00256
6	0.03500	0.06396	1.04227	11.48291	2.10123	1.00382
7	0.04000	0.08377	1.35051	13.15808	2.10716	1.00666
8	0.04200	0.09240	1.50790	13.82294	2.10785	1.00699
9	0.04400	0.10144	1.67001	14.48616	2.10856	1.00733
10	0.04600	0.11098	1.82418	15.15865	2.11054	1.00827
11	0.04800	0.12090	1.98323	15.82556	2.11163	1.00880
12	0.05000	0.13123	2.14929	16.49110	2.11303	1.00946
13	0.05500	0.15920	2.63134	18.18666	2.11825	1.01196
14	0.06000	0.18982	3.17696	19.87828	2.12200	1.01375
15	0.06500	0.22327	3.75305	21.58257	2.12648	1.01589
16	0.07000	0.25962	4.36070	23.30380	2.13201	1.01853
17	0.07500	0.29887	5.08167	25.03831	2.13777	1.02128
18	0.08000	0.34103	5.87890	26.78425	2.14398	1.02425
19	0.08500	0.38618	6.74946	28.54665	2.15072	1.02747
20	0.09000	0.43438	7.70827	30.32532	2.15797	1.03093
21	0.09500	0.48549	8.74406	32.10979	2.16488	1.03423
22	0.10000	0.53970	9.88144	33.91063	2.17217	1.03771
23	0.11000	0.65752	12.54387	37.55747	2.18754	1.04506
24	0.12000	0.80340	15.88230	42.06588	2.24787	1.07388
25	0.13000	0.97663	20.16846	47.20287	2.32811	1.11221
26	0.14000	1.18581	25.98040	53.21889	2.43712	1.16429
27	0.15000	1.45070	34.61372	60.76693	2.59814	1.24122
28	0.16000	1.91259	49.20488	75.10729	3.01255	1.43919
29	0.17000	2.66616	71.54356	98.54105	3.72741	1.78070
30	0.18000	3.23899	89.75721	113.06203	4.03331	1.92684
31	0.19000	4.07012	103.11606	134.59630	4.54817	2.17281
32	0.20000	5.14446	123.28976	161.61803	5.18795	2.47845
33	0.22000	6.30942	143.11557	180.19647	5.26165	2.51366
34	0.24000	7.61588	168.37219	199.38332	5.33776	2.55002
35	0.26000	8.48870	179.35490	205.13873	5.07668	2.42529
36	0.28000	11.49238	239.33804	257.88849	5.92526	2.83069
37	0.30000	12.65921	235.62909	265.13388	5.68088	2.71394
38	0.32000	14.16639	211.40672	278.15649	5.58745	2.66930
39	0.34000	15.37581	221.72063	284.14432	5.37442	2.56754
40	0.36000	17.16150	240.22885	299.52475	5.35239	2.55701
41	0.38000	19.25391	267.26163	318.35760	5.38212	2.57121
42	0.40000	23.78780	303.84857	373.65784	6.00339	2.86801
43	0.42000	26.12178	362.98035	390.78091	5.98586	2.85964
44	0.44000	28.69215	373.16251	409.72293	5.98753	2.86044
45	0.46000	32.49567	389.83466	443.86160	6.20448	2.96408
46	0.48000	36.59037	414.60480	478.96680	6.41389	3.06412
47	0.50000	41.54710	447.86731	522.09625	6.71870	3.20976
48	0.55000	44.22644	466.76187	505.24170	5.91071	2.82373
49	0.60000	52.72786	541.20233	552.16486	5.92334	2.82977
50	0.65000	68.80108	556.65143	665.06146	6.58172	3.14430
51	0.70000	83.82838	695.75519	752.44171	6.91583	3.30392
52	0.75000	101.37196	806.37567	849.25177	7.28625	3.48088
53	0.80000	112.90066	874.54828	886.71967	7.13339	3.40785
54	0.85000	114.98460	870.64844	849.96412	6.43779	3.07554
55	0.90000	119.88561	884.35461	836.95947	5.98764	2.86049
56	0.95000	130.13461	885.37628	860.69464	5.83594	2.78802
57	1.00000	128.52657	906.44476	807.55627	5.20311	2.48569
58	1.10000	128.40829	798.88092	733.46643	4.29844	2.05350
59	1.20000	139.44655	890.38629	730.14038	3.92379	1.87452
60	1.30000	155.45615	852.95270	751.35370	3.72553	1.77980
61	1.40000	178.79738	740.72205	802.44073	3.68312	1.75954
62	1.50000	206.13408	773.86090	863.45245	3.69957	1.76741
63	1.60000	223.72836	837.83484	878.57922	3.53265	1.68766
64	1.70000	241.76453	856.18652	893.55957	3.37928	1.61439
65	1.80000	260.44745	836.95709	909.13312	3.25175	1.55347
66	1.90000	278.13843	873.69623	919.78699	3.11771	1.48943
67	2.00000	299.24899	912.03796	940.11847	3.02757	1.44637
68	2.20000	321.64157	885.92596	918.60614	2.68508	1.28275
69	2.40000	352.97305	899.76434	924.08130	2.47985	1.18470
70	2.60000	387.40305	1006.28723	936.20197	2.31642	1.10663
71	2.80000	424.38095	1053.36194	952.30859	2.19093	1.04668
72	3.00000	455.51340	1012.18195	954.02502	2.04667	0.97776
73	3.20000	517.63843	1093.85010	1016.38068	2.04694	0.97789
74	3.40000	554.17365	1070.86487	1024.11047	1.94189	0.92770
75	3.60000	580.96100	1043.43945	1013.96820	1.81220	0.86575
76	3.80000	615.16711	990.85590	1017.16022	1.72133	0.82234
77	4.00000	657.83246	1037.85962	1033.32080	1.66400	0.79495
78	4.20000	695.14520	1095.01978	1039.93481	1.59680	0.76284
79	4.40000	717.94977	1139.63806	1025.22986	1.50434	0.71867
80	4.60000	723.34113	1172.89673	988.01880	1.38460	0.66147
81	4.80000	746.10315	1173.81287	976.64673	1.31015	0.62590
82	5.00000	773.18237	1141.94409	971.60968	1.25235	0.59829
83	5.50000	785.42816	1067.97791	897.27100	1.05586	0.50442
84	6.00000	755.88794	1023.35547	791.56403	0.84745	0.40485
85	6.50000	737.08734	964.91785	712.50098	0.70710	0.33780
86	7.00000	759.27234	929.15149	681.52124	0.62786	0.29995
87	7.50000	779.87714	922.06836	653.34839	0.56395	0.26942
88	8.00000	795.72852	930.94501	624.96375	0.50597	0.24172
89	8.50000	814.54425	940.41907	602.10968	0.45984	0.21968
90	9.00000	810.32050	940.59998	565.71039	0.40842	0.19511
91	9.50000	783.20715	928.55457	518.00372	0.35346	0.16886
92	10.00000	749.71234	912.67963	471.05817	0.30386	0.14516
93	11.00000	729.54742	862.13690	436.71649	0.24521	0.11715
94	12.00000	746.92725	800.44525	391.09021	0.21847	0.10437
95	13.00000	767.14453	743.56586	370.77777	0.19232	0.09188
96	14.00000	772.86926	696.81775	346.86292	0.16811	0.08031
97	15.00000	771.92053	660.20648	323.34134	0.14725	0.07034

TR1C00A.050

TR1C00A.050
TR1C: HUMBOLDT BAY, TRANSPORTER ROUTE, PG&E, 09/2002
12000 points 0.005 dt parameters are t,sd,sv,psv,sa,mr
97

1	0.01000	0.00480	0.15028	3.01355	1.93023	1.00047
2	0.01500	0.01084	0.16479	4.53953	1.93817	1.00459
3	0.02000	0.01921	0.27038	6.03349	1.93221	1.00150
4	0.02500	0.03000	0.42350	7.54092	1.93208	1.00163
5	0.03000	0.04331	0.60410	9.07007	1.93638	1.00366
6	0.03500	0.05895	0.81159	10.58233	1.93646	1.00370
7	0.04000	0.07713	1.07760	12.11571	1.94009	1.00558
8	0.04200	0.08507	1.19236	12.72677	1.94099	1.00605
9	0.04400	0.09341	1.31535	13.33824	1.94183	1.00648
10	0.04600	0.10214	1.43706	13.95133	1.94275	1.00696
11	0.04800	0.11127	1.56702	14.56564	1.94379	1.00750
12	0.05000	0.12083	1.70137	15.18369	1.94531	1.00829
13	0.05500	0.14650	2.06489	16.73594	1.94936	1.01039
14	0.06000	0.17472	2.47393	18.29671	1.95374	1.01266
15	0.06500	0.20546	2.94605	19.86111	1.95774	1.01473
16	0.07000	0.23884	3.43829	21.43822	1.96190	1.01689
17	0.07500	0.27487	3.99860	23.02770	1.96674	1.01940
18	0.08000	0.31360	4.60531	24.62993	1.97196	1.02210
19	0.08500	0.35508	5.27992	26.24747	1.97784	1.02515
20	0.09000	0.39948	6.00171	27.88863	1.98475	1.02873
21	0.09500	0.44680	6.80431	29.55082	1.99231	1.03265
22	0.10000	0.49719	7.67937	31.23955	2.00082	1.03706
23	0.11000	0.60773	9.68075	34.71348	2.02106	1.04755
24	0.12000	0.73273	12.08171	38.36570	2.04739	1.06120
25	0.13000	0.87493	15.07248	42.28745	2.08355	1.07994
26	0.14000	1.03998	18.87734	46.67403	2.13644	1.10736
27	0.15000	1.24311	24.05569	52.07121	2.22570	1.15362
28	0.16000	1.53708	32.19073	60.36113	2.42049	1.25458
29	0.17000	1.99260	42.54841	73.64637	2.77627	1.43899
30	0.18000	2.21320	46.75986	77.25535	2.75799	1.42951
31	0.19000	2.68168	57.84357	88.68141	2.99592	1.55284
32	0.20000	3.53277	86.95011	110.98537	3.56760	1.84915
33	0.22000	4.19460	97.62450	119.79755	3.49329	1.81063
34	0.24000	5.72841	132.12839	149.96951	4.02204	2.08470
35	0.26000	7.73943	174.07748	187.03191	4.62440	2.39691
36	0.28000	9.28317	176.84538	208.31380	4.78030	2.47771
37	0.30000	9.94562	138.83415	208.30064	4.45957	2.31147
38	0.32000	11.64948	156.61542	228.73698	4.59261	2.38043
39	0.34000	12.87240	177.45508	237.88139	4.49687	2.33081
40	0.36000	14.15882	198.48352	247.11806	4.41332	2.28750
41	0.38000	16.58681	232.11736	274.25781	4.64271	2.40640
42	0.40000	19.13123	269.48187	300.51270	4.83176	2.50439
43	0.42000	20.66246	287.24188	309.10965	4.73430	2.45387
44	0.44000	22.18356	305.30823	316.78055	4.62986	2.39974
45	0.46000	25.93991	269.78339	354.31573	4.94982	2.56558
46	0.48000	28.00003	250.93362	366.51953	4.90918	2.54451
47	0.50000	30.54920	268.74719	383.89258	4.93586	2.55834
48	0.55000	33.03441	329.96680	377.38419	4.40990	2.28573
49	0.60000	41.93863	429.82880	439.18030	4.70926	2.44089
50	0.65000	47.59302	435.52911	460.05505	4.55027	2.35849
51	0.70000	54.31488	509.43143	577.28900	5.30499	2.74967
52	0.75000	69.83821	490.47867	585.07526	5.01870	2.60128
53	0.80000	79.69876	523.83502	625.95258	5.03562	2.61005
54	0.85000	90.56577	598.31348	669.46057	5.06941	2.62757
55	0.90000	100.37137	680.39032	700.72437	5.00883	2.59617
56	0.95000	100.57973	659.80695	665.22223	4.50133	2.33312
57	1.00000	106.02941	627.83563	666.20245	4.28087	2.21885
58	1.10000	129.69981	770.59314	740.84357	4.33603	2.24744
59	1.20000	151.55948	761.83496	793.56356	4.25744	2.20671
60	1.30000	179.34160	909.49695	866.79730	4.29237	2.22481
61	1.40000	199.65988	917.67450	896.07141	4.12279	2.13691
62	1.50000	222.93240	1013.50153	933.81708	4.00757	2.07719
63	1.60000	236.78621	1016.87836	929.85724	3.74083	1.93894
64	1.70000	271.58405	1050.66187	1001.77228	3.80239	1.97085
65	1.80000	289.58817	1012.69812	1010.85339	3.61930	1.87595
66	1.90000	302.54004	984.96503	1000.48163	3.39454	1.75945
67	2.00000	331.86896	1081.47363	1042.59717	3.35982	1.74145
68	2.20000	354.24335	1227.91968	1011.71661	2.96522	1.53693
69	2.40000	354.81262	1081.16345	928.89728	2.49949	1.29553
70	2.60000	425.63760	1125.09521	1028.59998	2.55153	1.32250
71	2.80000	453.47556	1085.53259	1022.08472	2.35449	1.22037
72	3.00000	484.94070	1136.57056	1015.65747	2.18102	1.13046
73	3.20000	543.79657	1185.59839	1067.74207	2.15161	1.11522
74	3.40000	597.20087	1221.83093	1103.62463	2.09211	1.08438
75	3.60000	630.55939	1180.90759	1100.53369	1.97004	1.02111
76	3.80000	665.41968	1108.66687	1100.25134	1.86397	0.96613
77	4.00000	696.08240	1030.13318	1093.40369	1.76016	0.91232
78	4.20000	705.98120	1088.66357	1056.14551	1.61848	0.83889
79	4.40000	701.69617	1088.88391	1002.01978	1.46840	0.76110
80	4.60000	712.69257	1098.15259	973.47388	1.36164	0.70578
81	4.80000	732.91473	1139.83643	959.38312	1.28435	0.66570
82	5.00000	757.59717	1154.39111	952.02472	1.22498	0.63493
83	5.50000	752.14832	1090.40247	859.25220	1.00701	0.52195
84	6.00000	721.31171	1004.53064	755.35590	0.81261	0.42119
85	6.50000	776.60504	930.08478	750.70050	0.74495	0.38612
86	7.00000	831.70721	896.17084	746.53864	0.69224	0.35880
87	7.50000	836.23053	841.43707	700.55890	0.60923	0.31578
88	8.00000	834.91882	801.13141	655.74371	0.53612	0.27788
89	8.50000	846.08124	782.48505	625.42181	0.48196	0.24981
90	9.00000	857.09631	773.02134	598.36609	0.43577	0.22587
91	9.50000	850.29047	759.76892	562.37183	0.38825	0.20124
92	10.00000	818.16522	737.22949	514.06836	0.33790	0.17514
93	11.00000	758.73779	733.75592	433.38998	0.26226	0.13593
94	12.00000	781.25665	720.87781	409.06503	0.22754	0.11794
95	13.00000	778.82458	688.11786	376.42300	0.19323	0.10015
96	14.00000	764.99817	668.13440	343.33038	0.16397	0.08499
97	15.00000	750.19092	664.03485	314.23926	0.14070	0.07293

TR3C00A.050

TR3C00A.050
TR3C: HUMBOLDT BAY, TRANSPORTER ROUTE, PG&E, 09/2002
12000 points 0.005 dt parameters are t,sd,sv,psv,sa,mr
97

1	0.01000	0.00522	0.10028	3.28110	2.10163	1.00164
2	0.01500	0.01175	0.20657	4.92036	2.10094	1.00141
3	0.02000	0.02089	0.36923	6.56204	2.10145	1.00165
4	0.02500	0.03265	0.53686	8.20627	2.10241	1.00211
5	0.03000	0.04697	0.80672	9.83804	2.10043	1.00117
6	0.03500	0.06402	1.07763	11.49273	2.10314	1.00246
7	0.04000	0.08380	1.36790	13.16303	2.10759	1.00458
8	0.04200	0.09247	1.54002	13.83396	2.10963	1.00555
9	0.04400	0.10156	1.71315	14.50239	2.11108	1.00624
10	0.04600	0.11108	1.88271	15.17215	2.11259	1.00696
11	0.04800	0.12103	2.05922	15.84338	2.11413	1.00770
12	0.05000	0.13146	2.23761	16.51995	2.11624	1.00870
13	0.05500	0.15946	2.72516	18.21630	2.12162	1.01126
14	0.06000	0.19007	3.25732	19.90434	2.12522	1.01298
15	0.06500	0.22351	3.84162	21.60511	2.12938	1.01496
16	0.07000	0.25997	4.49460	23.33495	2.13568	1.01797
17	0.07500	0.29917	5.20675	25.06305	2.14115	1.02057
18	0.08000	0.34120	6.02018	26.79794	2.14641	1.02308
19	0.08500	0.38629	6.91333	28.55455	2.15265	1.02606
20	0.09000	0.43450	7.89829	30.33395	2.15950	1.02932
21	0.09500	0.48569	8.95889	32.12273	2.16620	1.03251
22	0.10000	0.53994	10.12604	33.92516	2.17308	1.03579
23	0.11000	0.66345	12.85113	37.89627	2.20912	1.05297
24	0.12000	0.81246	16.27504	42.54006	2.27298	1.08341
25	0.13000	0.98800	20.65392	47.75229	2.35504	1.12252
26	0.14000	1.19994	26.57698	53.85319	2.46617	1.17549
27	0.15000	1.46793	35.31081	61.48841	2.62931	1.25325
28	0.16000	1.91800	49.93666	75.31987	3.02640	1.44252
29	0.17000	2.67410	72.48369	98.83468	3.73689	1.78118
30	0.18000	3.27710	91.58322	114.39250	4.08901	1.94902
31	0.19000	4.13944	105.77763	136.88869	4.63798	2.21068
32	0.20000	5.27332	126.57804	165.66611	5.31638	2.53404
33	0.22000	6.42351	148.01897	183.45497	5.35814	2.55395
34	0.24000	7.80789	173.06721	204.41010	5.47124	2.60785
35	0.26000	8.63399	183.10425	208.56978	5.16502	2.46189
36	0.28000	11.64170	242.54694	261.23917	6.00363	2.86162
37	0.30000	12.75812	237.31667	267.20547	5.72525	2.72893
38	0.32000	14.23129	211.77499	279.43066	5.61302	2.67543
39	0.34000	15.47664	223.35336	286.00766	5.40949	2.57842
40	0.36000	17.25879	241.30605	301.22263	5.38230	2.56546
41	0.38000	19.26247	267.11929	318.49915	5.38422	2.56638
42	0.40000	23.83166	304.88239	374.34689	6.01413	2.86662
43	0.42000	26.18403	364.20908	391.71219	5.99919	2.85950
44	0.44000	28.74682	374.46329	410.50366	5.99788	2.85887
45	0.46000	32.45690	390.12225	443.33197	6.19808	2.95430
46	0.48000	36.54536	414.68491	478.37766	6.40627	3.05353
47	0.50000	41.51008	447.51239	521.63104	6.71210	3.19931
48	0.55000	44.20969	466.69260	505.05026	5.90884	2.81643
49	0.60000	52.61775	539.83197	551.01178	5.91109	2.81751
50	0.65000	68.71218	556.65607	664.20209	6.57317	3.13308
51	0.70000	83.76051	695.39038	751.83252	6.91022	3.29374
52	0.75000	101.30766	805.94202	848.71307	7.28160	3.47076
53	0.80000	112.82989	874.11542	886.16382	7.12896	3.39800
54	0.85000	114.92075	870.29895	849.49219	6.43420	3.06685
55	0.90000	119.83603	884.03058	836.61334	5.98517	2.85282
56	0.95000	130.09241	884.86707	860.41547	5.83406	2.78079
57	1.00000	128.46700	906.33521	807.18195	5.20068	2.47889
58	1.10000	128.34996	798.25513	733.13324	4.29647	2.04790
59	1.20000	139.38481	889.80408	729.81714	3.92210	1.86946
60	1.30000	155.47406	852.04065	751.44025	3.72602	1.77600
61	1.40000	178.78244	740.24249	802.37372	3.68278	1.75539
62	1.50000	206.15065	773.91772	863.52185	3.69991	1.76355
63	1.60000	223.73305	838.06659	878.59760	3.53271	1.68386
64	1.70000	241.78270	856.47168	893.62677	3.37963	1.61089
65	1.80000	260.44452	837.86041	909.12286	3.25171	1.54992
66	1.90000	278.10999	874.81964	919.69293	3.11734	1.48587
67	2.00000	299.23114	913.10913	940.06238	3.02738	1.44299
68	2.20000	321.61124	886.69385	918.51953	2.68478	1.27969
69	2.40000	352.93893	899.65863	923.99194	2.47954	1.18187
70	2.60000	387.427581006.76172		936.26129	2.31659	1.10420
71	2.80000	424.364721053.74109		952.27216	2.19089	1.04428
72	3.00000	455.512631012.48303		954.02344	2.04666	0.97554
73	3.20000	517.628851093.593261016.36182			2.04693	0.97566
74	3.40000	554.158631070.647221024.08276			1.94181	0.92556
75	3.60000	580.946781043.976931013.94342			1.81215	0.86376
76	3.80000	615.16260 990.540341017.15277			1.72135	0.82048
77	4.00000	657.838621037.853031033.33057			1.66403	0.79316
78	4.20000	695.126161094.922241039.90637			1.59676	0.76109
79	4.40000	717.935611139.639771025.20959			1.50430	0.71702
80	4.60000	723.325561173.05554 987.99756			1.38455	0.65994
81	4.80000	746.086431174.04895 976.62482			1.31005	0.62443
82	5.00000	773.231321142.20156 971.67114			1.25252	0.59701
83	5.50000	785.372561067.76477 897.20746			1.05582	0.50325
84	6.00000	755.877261023.16455 791.55286			0.84747	0.40394
85	6.50000	737.11603 964.75006 712.52869			0.70713	0.33705
86	7.00000	759.28949 928.98425 681.53668			0.62788	0.29928
87	7.50000	779.90509 921.93939 653.37177			0.56400	0.26883
88	8.00000	795.73828 930.61042 624.97137			0.50595	0.24116
89	8.50000	814.51727 940.25220 602.08978			0.45982	0.21917
90	9.00000	810.29181 940.43018 565.69037			0.40841	0.19467
91	9.50000	783.27441 928.44312 518.04822			0.35348	0.16849
92	10.00000	749.73328 912.74841 471.07132			0.30387	0.14484
93	11.00000	729.46967 862.13922 416.67209			0.24522	0.11688
94	12.00000	746.74719 800.45667 390.99594			0.21845	0.10412
95	13.00000	767.18494 743.50354 370.79730			0.19234	0.09168
96	14.00000	772.91510 696.84296 346.88348			0.16812	0.08013
97	15.00000	772.11700 660.23718 323.42361			0.14728	0.07020

Attachment G

DEFORMP

Input and Output Excerpts

(see Table 8-6 for listing of files)

TR1CSP.INP

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TR1CSP.DAT
TR1C00.QSC
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(8F10.6)
TR1C00.QSC
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(8F10.6)
TR1C00.QSC
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(8F10.6)
TR1C00.QSC
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(8F10.6)
TR1C00.QSC
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(8F10.6)
TR1C00.QSC
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(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.06,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.07,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.08,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.09,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.10,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.11,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.12,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.13,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.14,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.15,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.2,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.3,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.4,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.5,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.55,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.6,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.65,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.7,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.75,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.8,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.85,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.9,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.95,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,1.0,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,1.1,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,1.2,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,1.3,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,1.4,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,1.5,1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,1.6,1.0
(8F10.6)
```

TR1CSP.DAT

TR1CSP.DAT
Summary of Permanent deformation from Newmark's method

Slip A.(g),	Slip/Amx,	Slip D.(ft),	Amx,	Scaling F.,	file
0.00500	0.00279	0.6200E+03	1.79147	1.00000	TR1C00.QSC
0.01000	0.00558	0.5098E+03	1.79147	1.00000	TR1C00.QSC
0.01500	0.00837	0.4005E+03	1.79147	1.00000	TR1C00.QSC
0.02000	0.01116	0.3075E+03	1.79147	1.00000	TR1C00.QSC
0.03000	0.01675	0.2189E+03	1.79147	1.00000	TR1C00.QSC
0.04000	0.02233	0.1751E+03	1.79147	1.00000	TR1C00.QSC
0.05000	0.02791	0.1473E+03	1.79147	1.00000	TR1C00.QSC
0.06000	0.03349	0.1319E+03	1.79147	1.00000	TR1C00.QSC
0.07000	0.03907	0.1186E+03	1.79147	1.00000	TR1C00.QSC
0.08000	0.04466	0.1068E+03	1.79147	1.00000	TR1C00.QSC
0.09000	0.05024	0.9580E+02	1.79147	1.00000	TR1C00.QSC
0.10000	0.05582	0.8750E+02	1.79147	1.00000	TR1C00.QSC
0.11000	0.06140	0.8165E+02	1.79147	1.00000	TR1C00.QSC
0.12000	0.06698	0.7696E+02	1.79147	1.00000	TR1C00.QSC
0.13000	0.07257	0.7279E+02	1.79147	1.00000	TR1C00.QSC
0.14000	0.07815	0.6895E+02	1.79147	1.00000	TR1C00.QSC
0.15000	0.08373	0.6530E+02	1.79147	1.00000	TR1C00.QSC
0.20000	0.11164	0.5036E+02	1.79147	1.00000	TR1C00.QSC
0.30000	0.16746	0.3266E+02	1.79147	1.00000	TR1C00.QSC
0.40000	0.22328	0.2263E+02	1.79147	1.00000	TR1C00.QSC
0.50000	0.27910	0.1525E+02	1.79147	1.00000	TR1C00.QSC
0.55000	0.30701	0.1244E+02	1.79147	1.00000	TR1C00.QSC
0.60000	0.33492	0.1006E+02	1.79147	1.00000	TR1C00.QSC
0.65000	0.36283	0.8081E+01	1.79147	1.00000	TR1C00.QSC
0.70000	0.39074	0.6351E+01	1.79147	1.00000	TR1C00.QSC
0.75000	0.41865	0.4835E+01	1.79147	1.00000	TR1C00.QSC
0.80000	0.44656	0.3525E+01	1.79147	1.00000	TR1C00.QSC
0.85000	0.47447	0.2460E+01	1.79147	1.00000	TR1C00.QSC
0.90000	0.50238	0.1637E+01	1.79147	1.00000	TR1C00.QSC
0.95000	0.53029	0.1148E+01	1.79147	1.00000	TR1C00.QSC
1.00000	0.55820	0.9161E+00	1.79147	1.00000	TR1C00.QSC
1.10000	0.61402	0.5999E+00	1.79147	1.00000	TR1C00.QSC
1.20000	0.66984	0.3905E+00	1.79147	1.00000	TR1C00.QSC
1.30000	0.72566	0.2492E+00	1.79147	1.00000	TR1C00.QSC
1.40000	0.78148	0.1507E+00	1.79147	1.00000	TR1C00.QSC
1.50000	0.83730	0.8182E-01	1.79147	1.00000	TR1C00.QSC
1.60000	0.89312	0.3456E-01	1.79147	1.00000	TR1C00.QSC

TR1CSN.INP

```
TR1CSN.DAT
TR1C00.QSC
5,12000,0.005,5,0.005,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.01,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.015,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.02,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.03,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.04,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.05,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.06,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.07,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.08,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.09,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.10,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.11,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.12,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.13,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.14,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.15,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.2,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.3,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.4,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.5,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.55,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.6,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.65,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.7,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.75,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.8,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.85,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.9,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,0.95,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,1.0,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,1.1,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,1.2,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,1.3,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,1.4,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,1.5,-1.0
(8F10.6)
TR1C00.QSC
5,12000,0.005,5,1.6,-1.0
(8F10.6)
```

TR1CSN.DAT

TR1CSN.DAT
Summary of Permanent deformation from Newmark's method

Slip A.(g),	Slip/Amx,	Slip D.(ft),	Amx,	Scaling F.,	file
0.00500	0.00269	0.3707E+03	1.85918	-1.00000	TR1C00.QSC
0.01000	0.00538	0.2797E+03	1.85918	-1.00000	TR1C00.QSC
0.01500	0.00807	0.2117E+03	1.85918	-1.00000	TR1C00.QSC
0.02000	0.01076	0.1782E+03	1.85918	-1.00000	TR1C00.QSC
0.03000	0.01614	0.1470E+03	1.85918	-1.00000	TR1C00.QSC
0.04000	0.02151	0.1291E+03	1.85918	-1.00000	TR1C00.QSC
0.05000	0.02689	0.1149E+03	1.85918	-1.00000	TR1C00.QSC
0.06000	0.03227	0.1020E+03	1.85918	-1.00000	TR1C00.QSC
0.07000	0.03765	0.9181E+02	1.85918	-1.00000	TR1C00.QSC
0.08000	0.04303	0.8407E+02	1.85918	-1.00000	TR1C00.QSC
0.09000	0.04841	0.7690E+02	1.85918	-1.00000	TR1C00.QSC
0.10000	0.05379	0.7076E+02	1.85918	-1.00000	TR1C00.QSC
0.11000	0.05917	0.6597E+02	1.85918	-1.00000	TR1C00.QSC
0.12000	0.06454	0.6160E+02	1.85918	-1.00000	TR1C00.QSC
0.13000	0.06992	0.5794E+02	1.85918	-1.00000	TR1C00.QSC
0.14000	0.07530	0.5481E+02	1.85918	-1.00000	TR1C00.QSC
0.15000	0.08068	0.5182E+02	1.85918	-1.00000	TR1C00.QSC
0.20000	0.10757	0.4080E+02	1.85918	-1.00000	TR1C00.QSC
0.30000	0.16136	0.2609E+02	1.85918	-1.00000	TR1C00.QSC
0.40000	0.21515	0.1802E+02	1.85918	-1.00000	TR1C00.QSC
0.50000	0.26894	0.1258E+02	1.85918	-1.00000	TR1C00.QSC
0.55000	0.29583	0.1083E+02	1.85918	-1.00000	TR1C00.QSC
0.60000	0.32272	0.9380E+01	1.85918	-1.00000	TR1C00.QSC
0.65000	0.34962	0.8137E+01	1.85918	-1.00000	TR1C00.QSC
0.70000	0.37651	0.7061E+01	1.85918	-1.00000	TR1C00.QSC
0.75000	0.40340	0.6123E+01	1.85918	-1.00000	TR1C00.QSC
0.80000	0.43030	0.5294E+01	1.85918	-1.00000	TR1C00.QSC
0.85000	0.45719	0.4560E+01	1.85918	-1.00000	TR1C00.QSC
0.90000	0.48409	0.3927E+01	1.85918	-1.00000	TR1C00.QSC
0.95000	0.51098	0.3378E+01	1.85918	-1.00000	TR1C00.QSC
1.00000	0.53787	0.2896E+01	1.85918	-1.00000	TR1C00.QSC
1.10000	0.59166	0.2103E+01	1.85918	-1.00000	TR1C00.QSC
1.20000	0.64545	0.1476E+01	1.85918	-1.00000	TR1C00.QSC
1.30000	0.69923	0.9697E+00	1.85918	-1.00000	TR1C00.QSC
1.40000	0.75302	0.5675E+00	1.85918	-1.00000	TR1C00.QSC
1.50000	0.80681	0.2660E+00	1.85918	-1.00000	TR1C00.QSC
1.60000	0.86060	0.1091E+00	1.85918	-1.00000	TR1C00.QSC

TR3CSP.INP

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TR3CSP.DAT
TR3C00.QSC
5,12000,0.005,5,0.005,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.01,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.015,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.02,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.03,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.04,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.05,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.06,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.07,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.08,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.09,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.10,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.11,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.12,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.13,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.14,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.15,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.2,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.3,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.4,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.5,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.55,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.6,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.65,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.7,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.75,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.8,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.85,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.9,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.95,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,1.0,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,1.1,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,1.2,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,1.3,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,1.4,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,1.5,1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,1.6,1.0
(8F10.6)
```

TR3CSP.DAT

TR3CSP.DAT
Summary of Permanent deformation from Newmark's method

Slip A.(g),	Slip/Amx,	Slip D.(ft),	Amx,	Scaling F.,	file
0.00500	0.00244	0.6056E+03	2.05140	1.00000	TR3C00.QSC
0.01000	0.00487	0.4913E+03	2.05140	1.00000	TR3C00.QSC
0.01500	0.00731	0.3784E+03	2.05140	1.00000	TR3C00.QSC
0.02000	0.00975	0.2989E+03	2.05140	1.00000	TR3C00.QSC
0.03000	0.01462	0.2196E+03	2.05140	1.00000	TR3C00.QSC
0.04000	0.01950	0.1887E+03	2.05140	1.00000	TR3C00.QSC
0.05000	0.02437	0.1635E+03	2.05140	1.00000	TR3C00.QSC
0.06000	0.02925	0.1423E+03	2.05140	1.00000	TR3C00.QSC
0.07000	0.03412	0.1268E+03	2.05140	1.00000	TR3C00.QSC
0.08000	0.03900	0.1177E+03	2.05140	1.00000	TR3C00.QSC
0.09000	0.04387	0.1101E+03	2.05140	1.00000	TR3C00.QSC
0.10000	0.04875	0.1033E+03	2.05140	1.00000	TR3C00.QSC
0.11000	0.05362	0.9717E+02	2.05140	1.00000	TR3C00.QSC
0.12000	0.05850	0.9179E+02	2.05140	1.00000	TR3C00.QSC
0.13000	0.06337	0.8673E+02	2.05140	1.00000	TR3C00.QSC
0.14000	0.06825	0.8196E+02	2.05140	1.00000	TR3C00.QSC
0.15000	0.07312	0.7745E+02	2.05140	1.00000	TR3C00.QSC
0.20000	0.09749	0.6290E+02	2.05140	1.00000	TR3C00.QSC
0.30000	0.14624	0.4371E+02	2.05140	1.00000	TR3C00.QSC
0.40000	0.19499	0.3154E+02	2.05140	1.00000	TR3C00.QSC
0.50000	0.24374	0.2365E+02	2.05140	1.00000	TR3C00.QSC
0.55000	0.26811	0.2052E+02	2.05140	1.00000	TR3C00.QSC
0.60000	0.29248	0.1786E+02	2.05140	1.00000	TR3C00.QSC
0.65000	0.31686	0.1554E+02	2.05140	1.00000	TR3C00.QSC
0.70000	0.34123	0.1349E+02	2.05140	1.00000	TR3C00.QSC
0.75000	0.36560	0.1167E+02	2.05140	1.00000	TR3C00.QSC
0.80000	0.38998	0.1012E+02	2.05140	1.00000	TR3C00.QSC
0.85000	0.41435	0.8744E+01	2.05140	1.00000	TR3C00.QSC
0.90000	0.43873	0.7502E+01	2.05140	1.00000	TR3C00.QSC
0.95000	0.46310	0.6421E+01	2.05140	1.00000	TR3C00.QSC
1.00000	0.48747	0.5503E+01	2.05140	1.00000	TR3C00.QSC
1.10000	0.53622	0.3919E+01	2.05140	1.00000	TR3C00.QSC
1.20000	0.58497	0.2571E+01	2.05140	1.00000	TR3C00.QSC
1.30000	0.63371	0.1428E+01	2.05140	1.00000	TR3C00.QSC
1.40000	0.68246	0.7135E+00	2.05140	1.00000	TR3C00.QSC
1.50000	0.73121	0.4227E+00	2.05140	1.00000	TR3C00.QSC
1.60000	0.77996	0.2453E+00	2.05140	1.00000	TR3C00.QSC

TR3CSN.INP

```
TR3CSN.DAT
TR3C00.QSC
5,12000,0.005,5,0.005,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.01,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.015,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.02,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.03,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.04,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.05,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.06,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.07,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.08,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.09,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.10,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.11,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.12,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.13,-1.0
(8F10.6)
TR3C00.QSC
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(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.15,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.2,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.3,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.4,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.5,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.55,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.6,-1.0
(8F10.6)
TR3C00.QSC
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(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.7,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.75,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.8,-1.0
(8F10.6)
TR3C00.QSC
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(8F10.6)
TR3C00.QSC
5,12000,0.005,5,0.9,-1.0
(8F10.6)
TR3C00.QSC
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(8F10.6)
TR3C00.QSC
5,12000,0.005,5,1.0,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,1.1,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,1.2,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,1.3,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,1.4,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,1.5,-1.0
(8F10.6)
TR3C00.QSC
5,12000,0.005,5,1.6,-1.0
(8F10.6)
```

TR3CSN.DAT

TR3CSN.DAT
Summary of Permanent deformation from Newmark's method

Slip A.(g),	Slip/Amx,	Slip D.(ft),	Amx,	Scaling F.,	file
0.00500	0.00280	0.4412E+03	1.78684	-1.00000	TR3C00.QSC
0.01000	0.00560	0.3272E+03	1.78684	-1.00000	TR3C00.QSC
0.01500	0.00839	0.2510E+03	1.78684	-1.00000	TR3C00.QSC
0.02000	0.01119	0.2221E+03	1.78684	-1.00000	TR3C00.QSC
0.03000	0.01679	0.1806E+03	1.78684	-1.00000	TR3C00.QSC
0.04000	0.02239	0.1531E+03	1.78684	-1.00000	TR3C00.QSC
0.05000	0.02798	0.1332E+03	1.78684	-1.00000	TR3C00.QSC
0.06000	0.03358	0.1182E+03	1.78684	-1.00000	TR3C00.QSC
0.07000	0.03918	0.1068E+03	1.78684	-1.00000	TR3C00.QSC
0.08000	0.04477	0.9628E+02	1.78684	-1.00000	TR3C00.QSC
0.09000	0.05037	0.8719E+02	1.78684	-1.00000	TR3C00.QSC
0.10000	0.05596	0.7874E+02	1.78684	-1.00000	TR3C00.QSC
0.11000	0.06156	0.7172E+02	1.78684	-1.00000	TR3C00.QSC
0.12000	0.06716	0.6577E+02	1.78684	-1.00000	TR3C00.QSC
0.13000	0.07275	0.6155E+02	1.78684	-1.00000	TR3C00.QSC
0.14000	0.07835	0.5773E+02	1.78684	-1.00000	TR3C00.QSC
0.15000	0.08395	0.5431E+02	1.78684	-1.00000	TR3C00.QSC
0.20000	0.11193	0.4094E+02	1.78684	-1.00000	TR3C00.QSC
0.30000	0.16789	0.2282E+02	1.78684	-1.00000	TR3C00.QSC
0.40000	0.22386	0.1422E+02	1.78684	-1.00000	TR3C00.QSC
0.50000	0.27982	0.9188E+01	1.78684	-1.00000	TR3C00.QSC
0.55000	0.30781	0.7570E+01	1.78684	-1.00000	TR3C00.QSC
0.60000	0.33579	0.6290E+01	1.78684	-1.00000	TR3C00.QSC
0.65000	0.36377	0.5227E+01	1.78684	-1.00000	TR3C00.QSC
0.70000	0.39175	0.4352E+01	1.78684	-1.00000	TR3C00.QSC
0.75000	0.41974	0.3624E+01	1.78684	-1.00000	TR3C00.QSC
0.80000	0.44772	0.3011E+01	1.78684	-1.00000	TR3C00.QSC
0.85000	0.47570	0.2494E+01	1.78684	-1.00000	TR3C00.QSC
0.90000	0.50368	0.2059E+01	1.78684	-1.00000	TR3C00.QSC
0.95000	0.53167	0.1691E+01	1.78684	-1.00000	TR3C00.QSC
1.00000	0.55965	0.1384E+01	1.78684	-1.00000	TR3C00.QSC
1.10000	0.61561	0.9073E+00	1.78684	-1.00000	TR3C00.QSC
1.20000	0.67158	0.5545E+00	1.78684	-1.00000	TR3C00.QSC
1.30000	0.72754	0.3005E+00	1.78684	-1.00000	TR3C00.QSC
1.40000	0.78351	0.1529E+00	1.78684	-1.00000	TR3C00.QSC
1.50000	0.83947	0.6954E-01	1.78684	-1.00000	TR3C00.QSC
1.60000	0.89544	0.2191E-01	1.78684	-1.00000	TR3C00.QSC

Attachment H

CD-Rom

Table of Contents

Table of Contents.txt file
GEO.HBIP.02.08 Rev. 1 07/18/03

All files listed are ASCII files that can be read by any text file such as Notepad.

Directory UTEXAS4_files:

Section C-C'
transport3.txt
transport3.out
transport3(dyn).txt
transport3(dyn).out

*.txt files are input files. *.out are output files. (dyn) files are used to determine (dynamic) yield acceleration for each section.

Directory EXCEL_files:

For use in DEFORMP analyses:

Section C-C'
Set 1 set1rot.xls s1cc.prn
Set 2 set2rot.xls s2cc.prn
Set 3 set3rot.xls s3cc.prn
Set 4 set4rot.xls s4cc.prn

*.xls files are spreadsheet files. *.prn files are rotated motions output from the spreadsheets.

For use in SHAKE analyses:

Section C-C'

SET 1

SET1_FP.ACC
SET1_FN_FLING_BC.ACC
SET1ROT.XLS
S1CC.AC8

SET 3

SET3_FP.ACC
SET3_FN_FLING_BC.ACC
SET3ROT.XLS
S3CC.AC8

*.ACC files are input components of ground motion from time history calculations. *.AC8 files are rotated surface motions used in SHAKE analyses.

Directory SHAKE_files:

Section C-C'

SET 1

TR1C.INP
S1CC.AC8
TR1CI.INP
TR1C.OUT
TR1C.PUN
TR1CI.OUT
TR1CI.PUN

SET 3

TR3C.INP
S3CC.AC8
TR3CI.INP
TR3C.OUT
TR3C.PUN
TR3CI.OUT
TR3CI.PUN

*.IN files are input files. *.OUT files are output files. *.PUN files are rotated outcrop motion files for use in QUAD4MU analyses.

Directory QUAD4MU files:

Section C-C'

SET 1

TR1C.Q4I
TR1CI.025
HBSOILNW.DAT
TR1C.Q4O
TR1C00.QSC
TR1C00.Q4A
TR1C01.Q4A
TR1C02.Q4A
TR1C03.Q4A
TR1C04.Q4A
TR1C05.Q4A
TR1C06.Q4A

SET 3

TR3C.Q4I
TR3CI.025
HBSOILNW.DAT
TR3C.Q4O
TR3C00.QSC
TR3C00.Q4A
TR3C01.Q4A
TR3C02.Q4A
TR3C03.Q4A
TR3C04.Q4A
TR3C05.Q4A
TR3C06.Q4A

*.011 files are rotated outcrop motions from SHAKE analyses. HBSOILNW.DAT is input dynamic soil properties file. *.Q4O files are output files. *.QSC files are seismic coefficient files. *.Q4A files are nodal response time history files.

Directory SPECTRAD_files:

Section C-C'

SET 1

SPECTRA1.INP
SPECTRA2.INP
SPECTRA3.INP
S1CC.050
TR1C00A.050
TR1C01A.050

SET 3

SPECTRA1.INP
SPECTRA2.INP
SPECTRA3.INP
S3CC.050
TR3C00A.050
TR3C01A.050

S*.050 files are spectra of rotated surface motion. PD*.050 files are spectra of nodes.

Directory DEFORMP_files:

From QUAD4MU output:

Section C-C'

SET 1

TR1CSP.INP
TR1CSN.INP
TR1CSP.DAT
TR1CSN.DAT

SET 3

TR3CSP.INP
TR3CSN.INP
TR3CSP.DAT
TR3CSN.DAT

*.QSC files are seismic coefficient input files from QUAD4MU output. *.DAT files are output displacement files.

Directly from EXCEL output:

SECTION C-C'

(*.inp)
s1cp
s1cn
s2cp
s2cn
s3cp
s3cn
s4cp
s4cn

*.inp files are input files from EXCEL.

(*.dat files)
s1cp
s1cn
s2cp
s2cn
s3cp
s3cn
s4cp
s4cn

*.dat files are output displacement files.

PACIFIC GAS AND ELECTRIC COMPANY
GEOSCIENCES DEPARTMENT
CALCULATION DOCUMENT

Calc Number: GEO.HBIP.02.08
Calc Revision: 1
Calc Date: 7/18/03
Calc Preparer: Z. –L. Wang/
C. C. chin
ITR Verification Method: A

ITR Faiz I. Makdisi
(name)

ITR: 7/18/03
(signature/date)

ITR: _____
(name)

ITR: _____
(signature/date)

1. INTRODUCTION

As required by Geosciences Department Level Administrative Procedure CF3-GE1, Revision A for Quality Related Calculations, I have performed an independent technical review of Revision 1 of the above listed calculation. I have performed a step-by-step check of the calculation (Verification Method A). This ITR report is structured with similar section headings as those in the calculation. All issues raised with the preparers of this calculation have been addressed and resolved.

2. CALCULATION PURPOSE

The purpose of the calculation in this Revision 1 is to repeat the dynamic response analyses performed in Revision 0, using an updated version (QUAD4MU) of the dynamic finite element program QUAD4M, and to update the estimated earthquake-induced deformations. I have verified that the purpose for performing the additional analyses is clearly stated.

3. CALCULATION ASSUMPTIONS

Except for minor editorial changes, no other changes were made to this section.

4. CALCULATION INPUTS

No changes have been made to this section from the previous revision.

5. CALCULATION METHODOLOGY AND EQUATION SUMMARY

Except for minor editorial changes, no other changes were made to the methodology as described in this section in Revision 0. I have verified that the reference made to the original program QUAD4M, was changed to the updated (modified) version, QUAD4MU.

6. CALCULATION SOFTWARE

The reference to the program QUAD4M has been changed to QUAD4MU (the updated version of the program). I have checked and verified that the updated program QUAD4MU has been documented and verified in Calculation GEO.DCPP.01.34. No other changes were made to this section in this revision.

7. CALCULATION BODY

Except for minor edits, no changes were made to Steps 1 though 6 of this section. In step 7, reference to the program QUAD4M has been changed to QUAD4MU.

Step 8 describes the repeat of the dynamic finite element analyses to compute the seismic coefficient time-histories for potential sliding masses along the transport route to the ISFSI site.

I have checked and verified the input files for the QUAD4MU analyses. I have verified that the output outcrop time histories from the SHAKE runs were correctly used as input at the base of the finite element model in QUAD4MU. I verified that the seismic coefficient time history outputs from QUAD4MU were correctly plotted by comparing the peak values from the output files with the plots shown on Figures 8-5 and 8-6.

I have verified that the seismic coefficient time histories from the output of QUAD4MU were correctly used as input to the DEFORMP displacement program. I have compared and verified that the peak values of the seismic coefficient time histories printed in the output files of QUAD4MU, are the same as those presented on the displacement plots in Figures 8-9 and 8-10.

8. CALCULATION RESULTS AND CONCLUSIONS

I have reviewed the results in this revision of the calculation and found them reasonable and consistent with the stated purpose and conclusions. The range of revised maximum earthquake-induced displacement for the potential sliding mass (along the critical section if the transporter route) of 9.0 ft is consistent with and slightly lower than the 10.5 ft computed in Revision 0 of this calculation.

9. CALCULATION LIMITATIONS

I have reviewed and verified that the stated limitations are appropriate.

10. CALCULATION IMPACT EVALUATION

I concur with the stated impact of the results of the calculation.

11. CALCULATION REFERENCES

Except for the updated reference to the QUAD4MU program, no changes were made to this section in this revision.

12. CALCULATION ATTACHMENTS

Attachments A, B, C and D remain unchanged from Revision 0. I have verified that the listed files and the printed excerpts of the input and output files in Attachments E, F and G, are accurate and sufficient to reproduce the analyses and calculations included in the CD. In addition, I have checked and verified that copies of the CD's are readable and each contains a "Read Me" file that describes its contents.