AP - 002

STAGE 1 & 2 WORKPLANS

DATE:

Nov. 6, 1998

PHILIP SERVICES CORP.
INDUSTRIAL SERVICES GROUP
Central Region

November 6, 1998

Mr. William C. Olson
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

SUBJECT: WESTGATE SUBDIVISION, GRIMES BATTERY AND TASKER ROAD STAGE 1 ABATEMENT PLAN INTERIM REPORT (Site Assessment Investigation)

Dear Mr. Olson:

On behalf of Shell Exploration and Production Technology Company, Philip Services Corporation respectfully submits this report pursuant to your July 24, 1998, letter. The report describes field work conducted during the period of July 27, 1998 through October 7, 1998. The field work consisted of an assessment of the Westgate Subdivision and adjacent undeveloped properties.

The work involved a soil vapor survey with mobile laboratory analysis, drilling soil borings, and installation of monitor wells. The soil vapor survey consisted of two hundred and sixty-eight sample locations spaced at approximately 100 foot intervals. A total of twenty-four soil borings were drilled and sampled. The soil samples were submitted for detailed laboratory analyses. Thirteen monitor wells were installed and sampled. Soil and groundwater samples were submitted for laboratory analyses.

Recommendations

Shell recommends that the five tasks shown below be reviewed by the OCD to continue the abatement assessment work. The proposed tasks are based on the results of the attached Stage 1 Abatement Plan Assessment Report. The five tasks will not begin until the OCD reviews and comments on the proposed work.

Task #1: Free Product Removal

Monitor well GMW-5 will be bailed daily for ten days to determine the recharge rate of free product hydrocarbons. Based on the ten day free product recharge rate, a hydrocarbon recovery program will be implemented. The free product recovery will continue until the hydrocarbons are no longer measurable with a bailer or an electronic oil/water interface probe. The recovered product will be disposed of at an OCD approved disposal facility.

Task #2: North of Grimes Battery Assessment-Remediation

Shell proposes to assess and dispose of the soil hydrocarbons north of the former Grimes Battery as shown in Figure 1.

An initial composite soil sample will be taken prior to any assessment work. The representative composite sample will be taken from four sections of the proposed assessment area. The composite sample will be submitted for total petroleum hydrocarbons (TPH-USEPA Method 418.1) and for compounds listed in 20 NMAC 6.2 3103 and 1101 laboratory analysis of these compounds will be performed using USEPA methods 8260, 8270, 8080, 8081A, 150.1, 160.1, 200.7, 245.1, 335.2 340.2, and 353.3.

The assessment work will be done with a backhoe to determine the vertical and horizontal extent of soil hydrocarbons. Field backhoe assessment and excavation will continue until no visible hydrocarbons and no PID readings are observed. Once the visual and field measured extent of hydrocarbon soils have been removed with the backhoe, a confirmation soil sample will be taken. The confirmation sample will be taken from the same locations as the initial samples, and composited into one sample. The purpose of this final composite soil sample is to assess if area closure can be determined. The final laboratory chemical analyses will be compounds that were found in the initial composite sample.

Task #3: South of Grimes Battery Assessment-Remediation

Shell proposes to assess and dispose of the soil hydrocarbons south of the former Grimes Battery designated as Task Area #3.

An initial composite soil sample will be taken prior to any assessment work. The representative composite sample will be taken from four sections of the proposed assessment area. The composite sample will be submitted for total petroleum hydrocarbons (TPH-USEPA Method 418.1) and for compounds listed in 20 NMAC 6.2 3103 and 1101 laboratory analysis of these compounds will be performed using USEPA methods 8260, 8270, 8080, 8081A, 150.1, 160.1, 200.7, 245.1, 335.2 340.2, and 353.3.

The assessment work will be done with a backhoe to determine the vertical and horizontal extent soil hydrocarbons. Field backhoe assessment and excavation will continue until no visible hydrocarbons and no PID readings are observed. Once the visual and field measured extent of hydrocarbon soils have been removed with the backhoe, a confirmation soil sample will be taken.

The confirmation sample will be taken from the same locations as the initial samples and composed into one sample. The purpose of this final composite soil sample is to assess if area closure can be determined. The final laboratory chemical analyses will be of those analyses that indicated the compounds were found in the initial composite sample.

Task #4: Casey Residence Assessment

At the Grimes Battery Site area, Shell proposes to drill three soil borings (GSB-12, GSB-13, & GSB-14) around and in the Casey home property in an attempt to delineate the eastern, southern, and northern edge of the material found at Grimes soil boring #7 (GSB-7) (Figure 1, Task Area #4).

The sampling protocol will consist of sampling every five feet until zero PID readings with a minimum depth of 20 feet. Samples representing the highest PID reading and bottom of the boring will be submitted for total petroleum hydrocarbons (TPH-USEPA Method 418.1) and for compounds listed in 20 NMAC 6.2 3103 and 1101 laboratory analysis of these compounds will be performed using USEPA methods 8260, 8270, 8080, 8081A, 150.1, 160.1, 200.7, 245.1, 335.2 340.2, and 353.3.

If field observations necessitate additional soil borings, we will commit up to two additional soil borings in areas to be determined by the field activities. The same sampling protocols will be followed. Shell will obtain the property owner's permission prior to commencing these activities.

Task #5: East of Tasker Road Assessment

Also, Shell proposes to drill one soil boring (TSB-14) approximately 30 feet east of TSB-13 in the front yard of 1328 Tasker (Figure 2, Task Area #5).

The sampling protocol will consist of sampling every five feet until zero PID readings with a minimum depth of 20 feet. Samples representing the highest PID reading and bottom of the boring will be submitted for total petroleum hydrocarbons (TPH-USEPA Method 418.1) and for compounds listed in 20 NMAC 6.2 3103 and 1101 laboratory analysis of these compounds will be performed using USEPA methods 8260, 8270, 8080, 8081A, 150.1, 160.1, 200.7, 245.1, 335.2 340.2, and 353.3.

If field observations necessitate additional soil borings, we will commit up to two additional soil borings in areas to be determined by the field results. The same sampling protocols will be followed. We have obtained the property owner's permission to conduct these activities.

If you have any questions concerning the report or recommended work, please contact me at 915-563-0118 or Wayne Hamilton at 281-544-2322.

Sincerely,
PHILIP SERVICES CORPORATION

Sharon E. Hall

Sharon E. Hall, General Manager

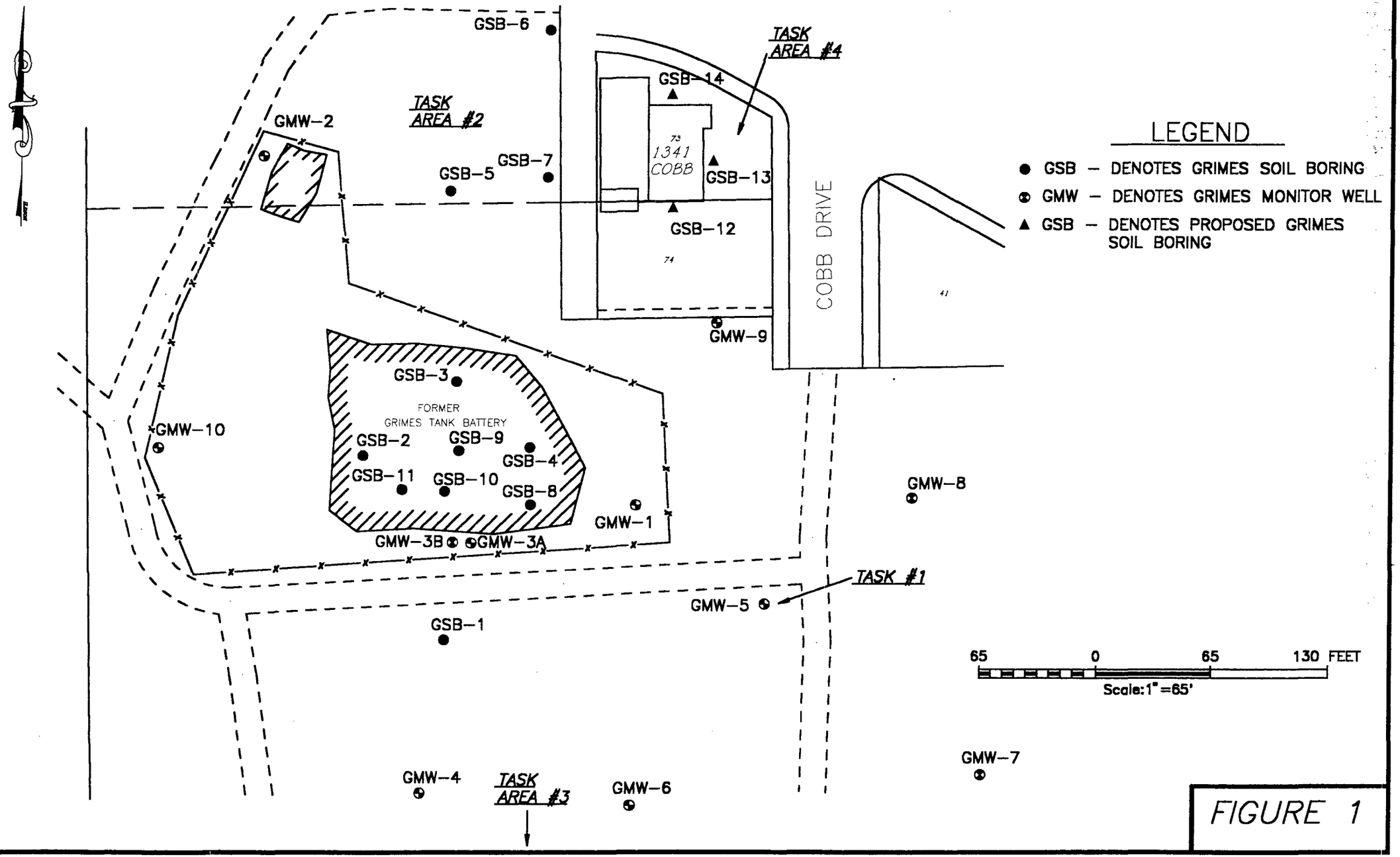
GSB-6
TASK AREA #4
GSB-14
TASK AREA #2
GMW-2
GSB-7
GSB-5
1341 COBB
GSB-13
GSB-12
COBB DRIVE
GMW-9
GSB-3
FORMER GRIMES TANK BATTERY
GMW-10
GSB-2
GSB-9
GSB-4
GSB-11
GSB-10
GSB-8
GMW-1
GMW-3B
GMW-3A
GMW-8
TASK #1
GMW-5
GSB-1
GMW-4
TASK AREA #3
GMW-6
GMW-7
LEGEND
GSB – DENOTES GRIMES SOIL BORING
GMW – DENOTES GRIMES MONITOR WELL
GSB – DENOTES PROPOSED GRIMES SOIL BORING
65 0 65 130 FEET
Scale:1"=65'

FIGURE 1

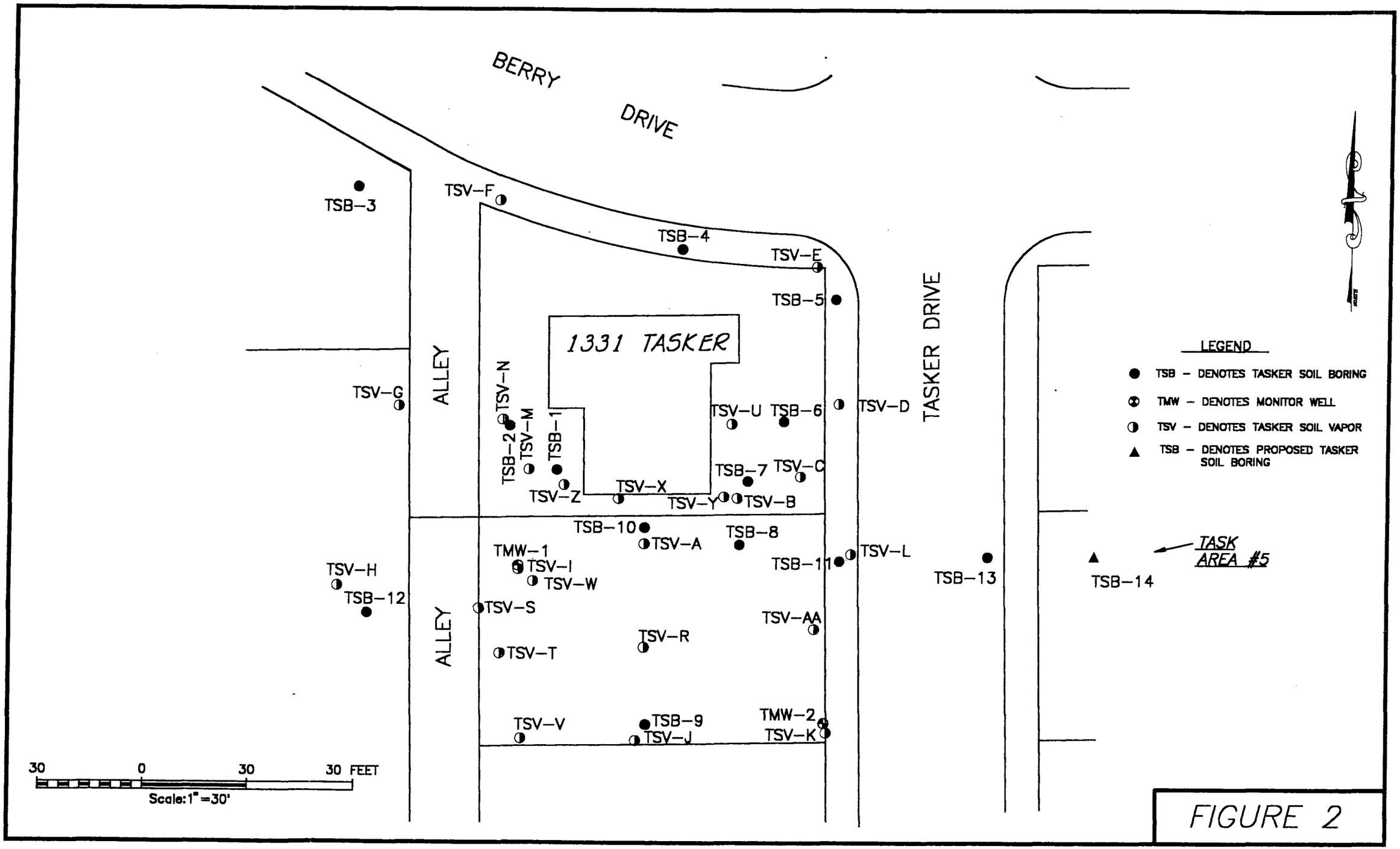
BERRY
DRIVE
TSB–3
TSV–F
TSB–4
TSV–E
TSB–5
1331 TASKER
ALLEY
TASKER DRIVE
TSV–G
TSV–N
TSV–M
TSB–2
TSB–1
TSV–U
TSB–6
TSV–D
TSB–7
TSV–C
TSV–Z
TSV–X
TSV–Y
TSV–B
TSB–10
TSV–A
TSB–8
TMW–1
TSV–I
TSV–W
TSB–11
TSV–L
TSV–H
TSB–12
TSV–S
TSV–AA
TSV–R
TSV–T
TSB–13
TSB–14
TASK AREA #5
TSV–V
TSB–9
TMW–2
TSV–J
TSV–K
LEGEND
TSB – DENOTES TASKER SOIL BORING
TMW – DENOTES MONITOR WELL
TSV – DENOTES TASKER SOIL VAPOR
TSB – DENOTES PROPOSED TASKER SOIL BORING
30 0 30 30 FEET
Scale: 1" = 30'

FIGURE 2