

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

4000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # BH- 3

Well # MW-1

Page 1 of 2

Project Name PNM HAMPTON 4M

Project Number 18839 Phase 6000

Project Location HAMPTON 4M

Elevation

Borehole Location SE Corner of Wellpad on hill

GWL Depth 38.85' BGS

Logged By CM CHANCE

Drilled By K Padilla

Date/Time Started 10/29/97

Date/Time Completed 10/29/97

Well Logged By CM CHANCE

Personnel On-Site D CHARLEY

Contractors On-Site

Client Personnel On-Site

Drilling Method 4 1/4 ID HSA

Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recover (Inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM BZ BH S			Drilling Conditions & Blow Counts
0										
5										
10										
15										
20	1	18-20	10	Lt Gry/Br weathered SANDSTONE Poorly cemented, F-med sand v. dense, dry		0				91-1341 hr
25	2	23-25	12	Br weathered SANDSTONE, Poorly cemented, v. F-sand, v. dense, dry		0				91-1351 hr
30	3	28-30	8	Lt Gry weathered SANDSTONE Fairly cemented, F-med sand, v. dense, dry		0				48/5-1418 hr
35	4	33-35	6	AA						91 -GW@38.85'
40	5	38-40	4	Lt Gry weathered SANDSTONE, Poorly cemented, F-med sand, dense, wet						91

Comments:

Location is ~20' above well pad. Will drill to 20' before sampling.
GW @ 38.85' BGS. Will drill 5' more & install well.

Geologist Signature

Cam Chance

000582

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

4000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # BH-3

Well # MW-1

Page 2 of 2

Project Name PNM HAMPTON 4M

Project Number 18839 Phase 6000

Project Location HAMPTON 4M

Elevation _____

Borehole Location _____

GWL Depth 38.85'

Logged By CM CHANCE

Drilled By K Padilla

Date/Time Started 10/29/97

Date/Time Completed 10/29/97

Well Logged By CM CHANCE

Personnel On-Site D CHARLEY

Contractors On-Site _____

Client Personnel On-Site _____

Drilling Method 4 1/4 ID HSA

Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recover (Inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM			Drilling Conditions & Blow Counts
							BZ	BH	S	
40										
45				TDS 43.8'						
50										
55										
60										
65										
70										
75										
80										

Comments: _____

Geologist Signature

CM Chance

MONITOR WELL INSTALLATION FORM

Philip Services Corp.

4000 Monroe Rd.

Farmington, NM 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # 3

Well # MW-1

Page 1 of 1

Project Name PNM HAMPTON 4M

Project Numb 18839

Phase 6000

Site Location HAMPTON 4M

Elevation _____

Well Location _____

GWL Depth 38.85' BGS

Installed By K PADILLA

On-Site Geologist C CHANCE

Personnel On-Site D CHARLEY

Contractors On-Site _____

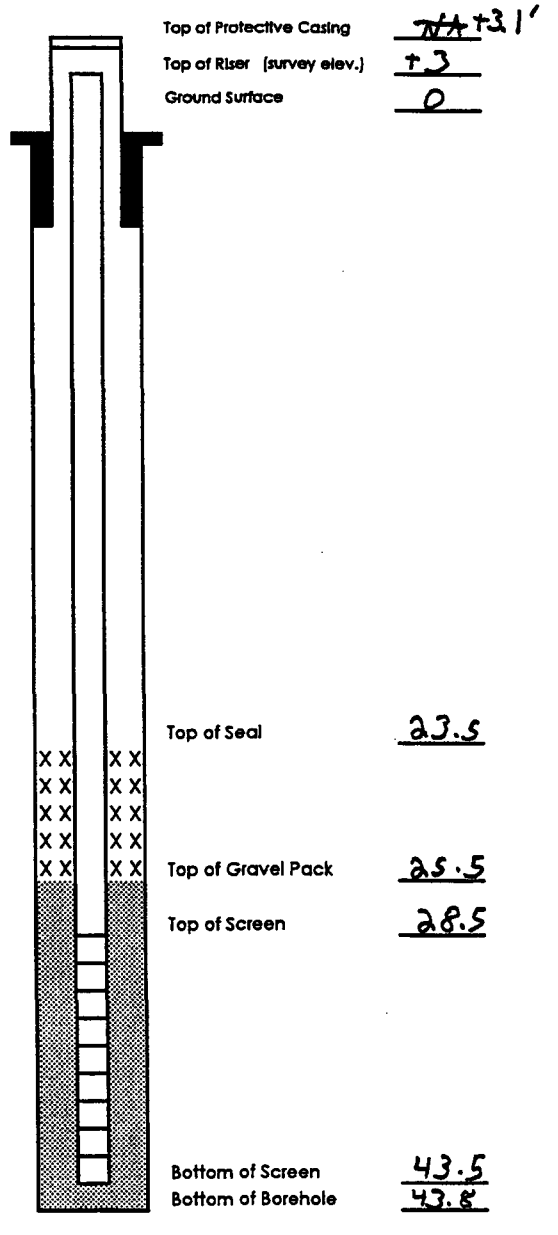
Client Personnel On-Site _____

Date/Time Started 10/29/97

Date/Time Complete 10/29/97

Depths in Reference to Ground Surface

Item	Material	Depth (feet)
Top of Protective Casing		3.1
Bottom of Protective Casing		12.9
Top of Permanent Borehole Casing		NA
Bottom of Permanent Borehole Casing		NA
Top of Concrete		NA
Bottom of Concrete		NA
Top of Grout		0
Bottom of Grout		23.5
Top of Well Riser	30' 2" x 10'	+3
Bottom of Well Riser	PVC riser	28.5
Top of Well Screen	15' 2" x 10'	28.5
Bottom of Well Screen	0.01 slot	43.5
Top of Peltonite Seal	hole plug	23.5
Bottom of Peltonite Seal		25.5
Top of Gravel Pack	10-20 silica	25.5
Bottom of Gravel Pack	SAND	43.5
Top of Natural Cave-In		43.5
Bottom of Natural Cave-In		43.8
Top of Groundwater		38.8
Total Depth of Borehole		43.8



Comments Set well @ 43.5' BGS. Hydrate seal w/ 10 gal potable water.

Padlock & locking wellcap on well. Well completed

Geologist Signature Cory Chance

FIELD BORING LOG

MW-2

TEST BORING NO. 1	MONITOR WELL NO. MW-1	PROJECT NO. 93108-02	PROJECT NAME: PNM GAS SERVICES	SHEET: OF:
WATER DESIGNATION OF DRILL: MOBIL DRILL B-61		PROJECT LOCATION: HAMPTON #4M		
TYPE OF BIT: AUGER DRILLING			SURFACE ELEVATION OF TB OR MBL:	TOTAL DEPTH OF HOLE: 45 FT.
DATE	STARTED: 12/16/96	DRILLING Co.: ENVIROTECH INC.		
	COMPLETED: 12/16/96			
COMPLETION TYPE: COMPLETED AS MONITOR WELL		ENGINEER: AL CAHARUNG	GROUNDWATER DEPTH 1045 1110	TIME 27.8' 27.75'
SURFACE CONDITIONS: GRADED YELLOW SILTY SAND				

[illegible]

Q 1045 : G.W. @ 27.5'
Q 1110 : G.W. @ 1110'

COMPLETED AS GROUNDWATER BORLOG DOC - 3/73

BORLOG DOC - 1/23

ENVIROTECH Inc.

5798 US HWY. 64, FARMINGTON, NM 87401
(505) 832-0815

PIT No: _____
C.O.C #: _____

FIELD REPORT: REMEDIATION FACILITY CLOSURE VERIFICATION

JOB No: _____
PAGE No: _____ of _____

FACILITY LOCATION: PNM Hampton #4 M
SOURCE LOCATION: _____
SOURCE LOCATION: _____
SOURCE LOCATION: _____
FACILITY CLASSIFICATION: _____ PIT TYPE: _____

DATE STARTED: 12/16/96
DATE FINISHED: _____

ENVIRONMENTAL
SPECIALIST: _____

SOIL REMEDIATION: QUANTITY: _____ # OF COMP. SAMPLES: _____

DIMENSIONS: _____

VISIBLE OBSERVATIONS: _____

SAMPLING PLAN: _____

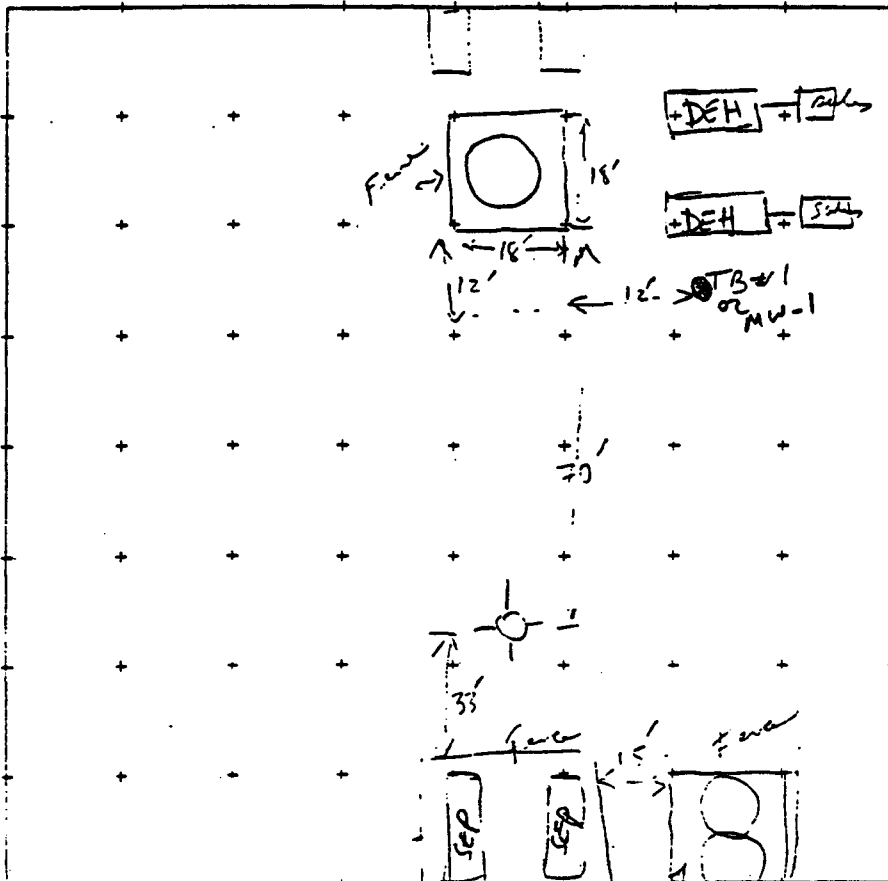
FIELD NOTES & REMARKS: FACILITY CENTER LOCATED APPROX _____ YARDS _____ FROM WELLHEAD.

DEPTH TO GROUNDWATER:
NEAREST WATER SOURCE/TYPE:
NEAREST SURFACE WATER:
MAX. TPH FEP NMOCB:

NO. OF 5-POINT
COMPOSITE SAMPLES:
1APIAGE--#
0-200=1
201-400=2
401-1000=3
1000=5

FACILITY DIAGRAM

GRID SCALE: 20'

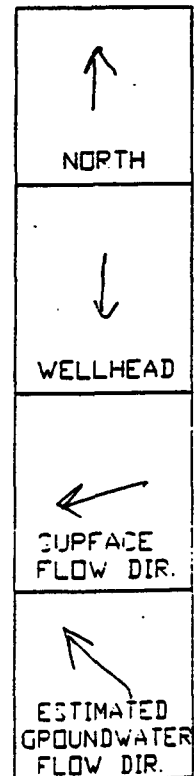


OVM RESULTS

SAMPLE ID:	FIELD HEADSPACE PPM (ppm)

LAB RESULTS

SAMPLE ID:	ANALYSIS REQUESTED	RESULTS PPM:



0007 96

PNM Gas service
Hampton #4M

12/16/96

after well completion

W.L. @ 21.58' @ ground level
@ 1321 seal

Bailed the well 28'
~ 5 gallons was removed

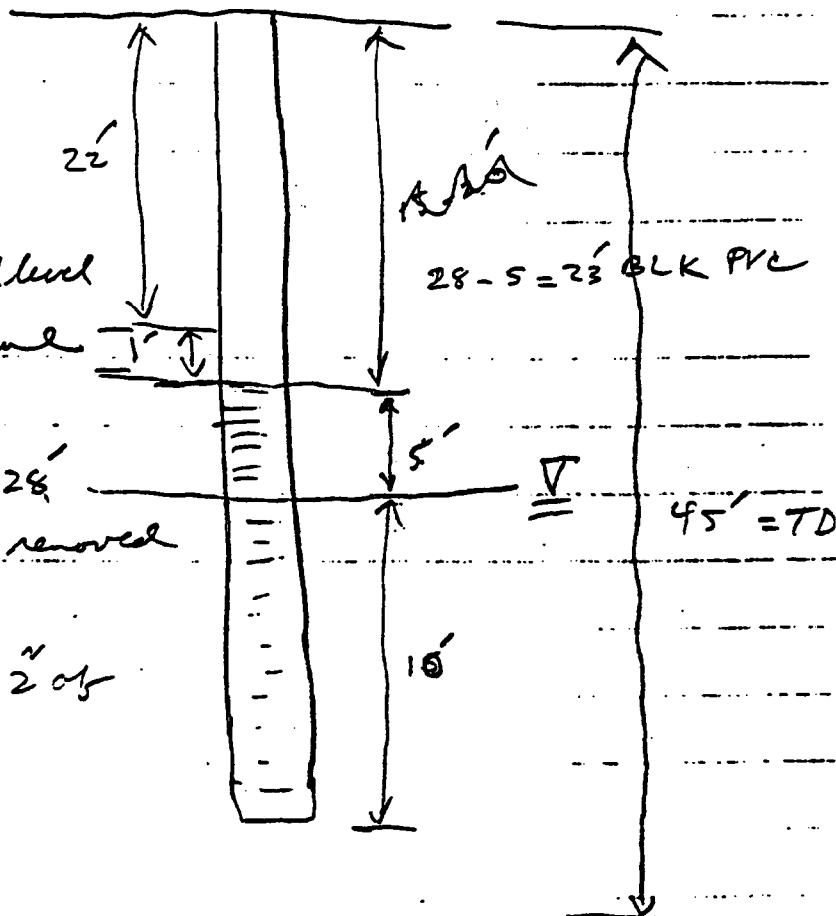
From this bailing ~ 2" of
product noted

Used 5 SKS OF SILICA SANDS

1 SK OF BENTONITE GEL

BACKFILL W/ CLEAN SOIL

BAILED THE WELL ALSO.



BORING LOG

Page 1 of 2

LOCATION MAP:

SITE ID: Hampton 4M LOCATION ID: MW-3
 SITE COORDINATES (ft.):
 N _____ E _____
 GROUND ELEVATION (ft. MSL): _____
 STATE: _____ COUNTY: _____
 DRILLING METHOD: Hollow Stem
 DRILLING CONTR.: Envirotech
 DATE STARTED: 1/31/97 DATE COMPLETED: 1/31/97
 FIELD REP.: _____
 COMMENTS: _____

1/4 1/4 SE 1/4 SW 1/4 S 13 T 30 N R 11 W

LOCATION DESCRIPTION: _____

DEPTH H	WELL CONST.	LITH.	SAMPLE					LITHOLOGIC DESCRIPTION (LITH., USCS, GRAIN SIZE PROPORTIONS, WE, COLOR, RNDG., SORT., CONSOL., DIST. FEATURES)
			USCS	FROM	TO	% REC	BLOW- COUNT	
0								0-5' Sand med-course slightly clayey moist lt Brown
5								5-6' Clay layer wet olive Brown
6								6-7' Clay dark color slightly Sand moderate sorted
7								7'-13' sand med-course sc clayey moist yellowish orange
10								13' Sand med-course mod sorted moist
14								14'-15' Sand stone layer yellowish orange clayey moist
15								15'-18' sand clayey medium course yellowish orange moist mod - well sorted
18								18'-19' Sand clayey Dark color Dark grey mod. sorted moist
20								19'-20' Sand clayey course poorly sorted orange brown moist
24								20'- Sand clay / med-course mod sorted orange brown moist
25								24.5' Sand clayey med-course mod sorted very moist 25' 22' Ground Water

Grout
5% Bentonite
mix2.5' Bentonite
Plug HydratedBlank
2" PVC

10/12 Sand Pack

0.0 PPM

0.0 PPM

3.0 PPM?
could be
background42.0 PPM
@ 24.5'

0001 00

BORING LOG
(Continued)

Page 2 of 2
LOCATION ID: MW-3

DEPTH H	WELL CONST.	LITH.	SAMPLE						LITHOLOGIC DESCRIPTION (LITH., USCS, GRAIN SIZE PROPORTIONS, WET COLOR, RNDG., SORT., CONSOL., DIST. FEATURES)
			USCS	FROM	TO	% REC	BLOW- COUNT	NUMBER OR PID READING	
30								no Reading with PID cuttings very wet & disturbed	25'-30' Sand SC med Grained wet Orangeish Brown, Mod Sorted low-med Plasticity
									30'-35 Sand SM SC med grained wet Slightly consolidated drilling slowed
35									34'-35 Clay olive Brown wet Plasticity
									35' TD of Borehole
40									34'-35' Clay olive grey Slight
									34-35' cuttings very wet dark water up from below looks like motor oil? No Reading with PID 0.0PPM
45									
50									
55									
60									

000770

BORING LOG

Page 1 of 1

LOCATION MAP:

SITE ID: Hampton #4m LOCATION ID: _____
 SITE COORDINATES (ft.):
 N _____ E _____
 GROUND ELEVATION (ft. MSL): _____
 STATE: N.M. COUNTY: SAN JUAN
 DRILLING METHOD: Hollow Stem
 DRILLING CONTR.: Enviro Tech
 DATE STARTED: 1-31-97 DATE COMPLETED: _____
 FIELD REP.: _____
 COMMENTS: _____

1/4 1/4 SE 1/4 SW 1/4 S 63 T 30N R 11W

LOCATION DESCRIPTION:

DEPTH ft.	WELL CONST.	LITH.	SAMPLE					NUMBER OR PID READING	LITHOLOGIC DESCRIPTION (LITH., USCS, GRAIN SIZE PROPORTIONS, WET COLOR, RNDG., SORT., CONSOL., DIST. FEATURES)
			USCS	FROM	TO	% REC	BLOW- COUNT		
2									2' weathered sandstone
3									3' sand yellowish orange
5									5' sand yellowish orange some silt sm
5									5' 600 lbs pressure on drill hard drilling
10									10' Fine consolidated sand weathered sandstone sm yellowish orange
11									11' hard drilling to 10' after 10' pressure 150 lbs.
15									15' fine sand yellowish-orange moderately sorted sand
13									13' Clay
14									14' sand poorly sorted yellowish-orange SC slight trace of clay
17									17' color change more of a orangish color
18									18' clay olive/GRY
20									20' clay olive/GRY SC
23									23' clay poorly sorted moist DARK GRY

600.00

BORING LOG
(Continued)Page 2 of
LOCATION ID:

DEPTH	WELL CONST.	LITH.	SAMPLE						LITHOLOGIC DESCRIPTION (LITH., USCS, GRAIN SIZE PROPORTIONS, WET COLOR, RNDG., SORT., CONSOL., DIST. FEATURES)
			USCS	FROM	TO	% REC	BLOW-COUNT	NUMBER OR PID READING	
27'		OH						80.7 ft	H ₂ O GRY color, moist clay
28'									Hand layer clay GRY color 700 lbs CH to drill thru
29'									
30'									
31'									GRY color clay OH high plasticity Organic silts
32'									900 lbs press. hand drilling
33'									
34'									
35'									GRY Clay OH high plasticity hand drilling stopped drilling
36'									
37'									
38'									
39'									
40'									
41'									
42'									
43'									
44'									
45'									
46'									
47'									
48'									
49'									
50'									
51'									
52'									
53'									
54'									
55'									
56'									
57'									
58'									
59'									
60'									

set 20' slotted screen

(sand to 13.2'
Bentrite 10.2'
grout to surface)

000701

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

4000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # BH-2

Well # MW-5

Page 1 of 1

Project Name PNM HAMPTON 4M

Project Number 18839 Phase 6000

Project Location HAMPTON 4M

Elevation

Borehole Location N. of Wellhead in Wash

GWL Depth 13.9' BGS

Logged By CM CHANCE

Drilled By K Padilla

Date/Time Started 10/29/97

Date/Time Completed 10/29/97

Well Logged By CM CHANCE

Personnel On-Site D CHARLEY

Contractors On-Site

Client Personnel On-Site

Drilling Method 4 1/4 ID HSA

Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recover (Inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM			Drilling Conditions & Blow Counts
							BZ	BH	SHS	
0										
5	1	5-7	20	Br silty SAND, f-med sand, tr v-f sand, loose, dry			0		9/3	
10	2	10-12	24	Br clayey SAND, v-f-f sand, loose, dry			0		1242	
				BIK clayey SAND, f-med sand, grades to sandy clay					1010	
15										
20										
25										
30										
35										
40										

Comments:

GW @ 13.9' BGS. Will install monitor well. Contamination begins @ ~ 11' BGS.

Geologist Signature

Core Chance

MONITOR WELL INSTALLATION FORM

Philip Services Corp.

4000 Monroe Rd.

Farmington, NM 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # 2

Well # MW-5

Page 1 of 1

Project Name PNM HAMPTON 4M

Project Numb 18839 Phase 6000

Site Location HAMPTON 4M

Elevation _____

Well Location _____

GWL Depth ~13.9'

Installed By K PADILLA

On-Site Geologist C CHANCE

Personnel On-Site D CHARLEY

Contractors On-Site _____

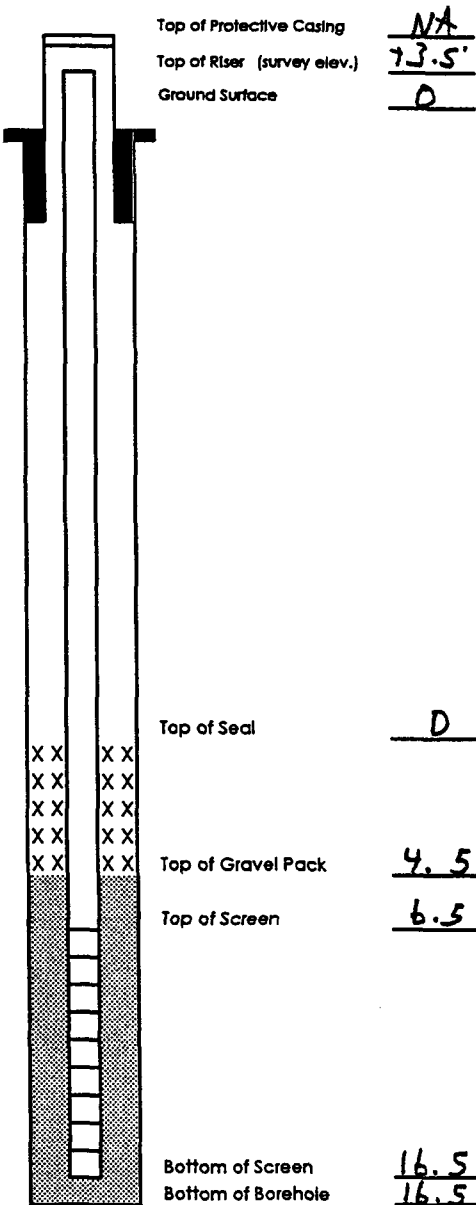
Client Personnel On-Site _____

Date/Time Started 10/29/97

Date/Time Complete 10/29/97

Depths in Reference to Ground Surface

Item	Material	Depth (feet)
Top of Protective Casing		NA
Bottom of Protective Casing		NA
Top of Permanent Borehole Casing		NA
Bottom of Permanent Borehole Casing		NA
Top of Concrete		NA
Bottom of Concrete		NA
Top of Grout		NA
Bottom of Grout		NA
Top of Well Riser	1-10' x 2"	73.5
Bottom of Well Riser	PVC	6.5
Top of Well Screen	1-10' x 2"	6.5
Bottom of Well Screen	0.01 slot	16.5
Top of Peltonite Seal	Half Plug	0
Bottom of Peltonite Seal		4.5
Top of Gravel Pack	10-20 silica	4.5
Bottom of Gravel Pack	SAND	16.5
Top of Natural Cave-In		16.5
Bottom of Natural Cave-In		16.5
Top of Groundwater		13.9
Total Depth of Borehole		16.5



Comments Set well @ 16.5' BGS. Hydrated seal w/ 5 gal potable water.

Locking well cap + padlock on well. (Not completed)

Geologist Signature Cory Chance

MONITOR WELL INSTALLATION FORM

Philip Services Corp.
4000 Monroe Rd.
Farmington, NM 87401
(505) 326-2262 FAX (505) 326-2388

Borehole # BH4
Well # MW6
Page 1 of 1

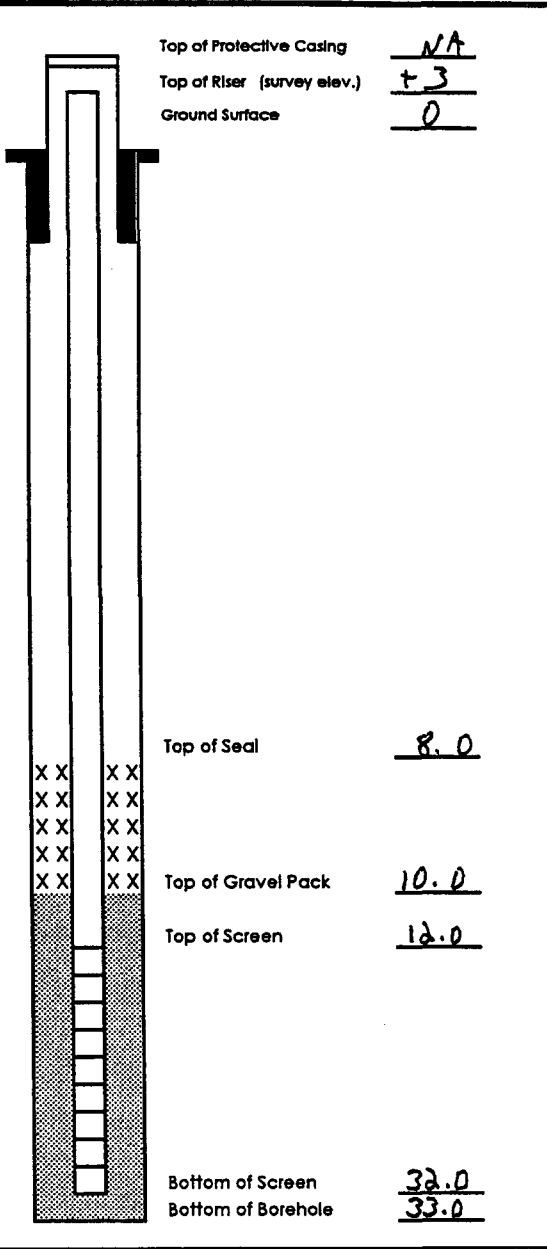
Project Name PNM HAMPTON 4M
Project Numb 18839 Phase 6000
Site Location HAMPTON 4M

Elevation _____
Well Location W. of MW2
GWL Depth ~26' BGS
Installed By K PADILLA

On-Site Geologist C CHANCE
Personnel On-Site D CHARLEY
Contractors On-Site _____
Client Personnel On-Site _____

Date/Time Started 10/20/97
Date/Time Complete 10/20/97

Depths in Reference to Ground Surface		
Item	Material	Depth (feet)
Top of Protective Casing		NA
Bottom of Protective Casing		NA
Top of Permanent Borehole Casing		NA
Bottom of Permanent Borehole Casing		NA
Top of Concrete		NA
Bottom of Concrete		NA
Top of Grout		2
Bottom of Grout		8
Top of Well Riser	15' 4"x10'	+3
Bottom of Well Riser	PVC riser	12
Top of Well Screen	20' 4"x10'	12
Bottom of Well Screen	0.01 slot	32
Top of Peltonite Seal	Hole	8
Bottom of Peltonite Seal	plug	10
Top of Gravel Pack	10-20 silica	10
Bottom of Gravel Pack	SAND	32
Top of Natural Cave-In		32
Bottom of Natural Cave-In		33
Top of Groundwater		26
Total Depth of Borehole		33



Comments Set well @ 32' BGS (~1' of stuff). Padlock & locking well cap on well. (Not completed)

Geologist Signature Cory Chance

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

4000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # BH- 4

Well # MW 6

Page 1 of 1

Project Name PNM HAMPTON 4M

Project Number 18839 Phase 6000

Project Location HAMPTON 4M

Elevation

Borehole Location W. of MW 2

GWL Depth ~26' BGS

Logged By CM CHANCE

Drilled By K Padilla

Date/Time Started 10/20/97

Date/Time Completed 10/20/97

Well Logged By CM CHANCE

Personnel On-Site D CHARLEY

Contractors On-Site

Client Personnel On-Site

Drilling Method 6 1/4 ID HSA

Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recover (Inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM			Drilling Conditions & Blow Counts
							BZ	BH	SHS	
0										
5										
10	1	10-12	NA	Fill to ~11'						
				off wh weathered SANDSTONE, poorly cemented, v-f sand, dry						PID by PNM
15	2	14.5-16.5	NA	Br/Reddish br SAND, F-med sand, v dense, dry						PID by PNM
20	3	18-20	10	Lt Br/Gry weathered SANDSTONE poorly cemented, F-med sand, tr coarse, dry, odor			0		235 227	-V. hard @ 18' -Dring. easier @ 23'
25	4	22-25	16	Lt Br/Gry clayey SAND, F-med sand, tr coarse, dense, wet, grades to coarse			0		226 103	-Saturated w/ hydrocarbon
30	5	28-30	12	Br clayey SAND, med-coarse, dense, saturated Gry SAND, coarse, well sorted, dense, saturated			0		100 NA	
35				TOB 33'						
40										

Comments: Encountered product @ ~24' BGS. Set well @ 33' BGS. GW @ ~26'

Geologist Signature

Corey Chance

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

4000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # BH-5A
Well # MW-7
Page 1 of

Project Name PNM HAMPTON 4M
Project Number 18929 Phase 1001
Project Location HAMPTON 4M

Elevation
Borehole Location Wash N. of SITE
GWL Depth ~16' BGS
Logged By CM CHANCE
Drilled By K Padilla
Date/Time Started 12/11/97
Date/Time Completed 12/11/97

Well Logged By CM CHANCE
Personnel On-Site D CHARLEY, P Archuleta
Contractors On-Site
Client Personnel On-Site M. Sikelianey, M. Gannon
Drilling Method 4 1/4 ID HSA
Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM BZ BH S			Drilling Conditions & Blow Counts
0										
5										
10	1	9-11	12	Br silty SAND, v-f-f sand, loose, dry, + gypsum						
	2	11-13	14	AA						
15	3	13-15	14	Br silty SAND, v-f-f sand, wet, loose, grades to Black sand					290	
20				TOB 17.5						
25										
30										
35										
40										

Comments: GW @ ~16' BGS Will set 2" well

Geologist Signature

CM Chance

MONITOR WELL INSTALLATION FORM

Philip Services Corp.

4000 Monroe Rd.

Farmington, NM 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # BH5A

Well # MW-7

Page 1 of 1

Project Name PNM Hampton 4M

Project Number 18929 Phase 1006.77

Site Location Hampton 4M

Elevation _____

Well Location Wash N. of site

GWL Depth ~16' BGS

Installed By K PADILLA

On-Site Geologist C CHANCE

Personnel On-Site D. Charley, P. Archibuty

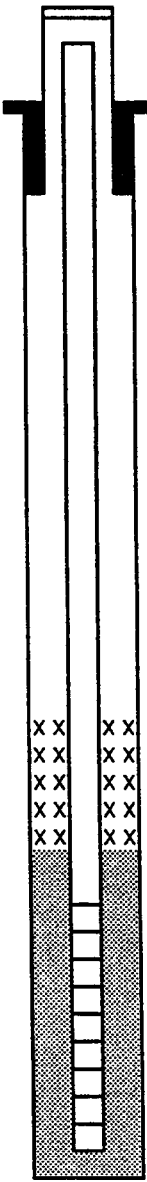
Contractors On-Site _____

Client Personnel On-Site M. Stelkianey, M. Gannon

Date/Time Started 12/1/97

Date/Time Complete 12/1/97

Depths in Reference to Ground Surface		
Item	Material	Depth (feet)
Top of Protective Casing		+3.1
Bottom of Protective Casing		1.9
Top of Permanent Borehole Casing		NA
Bottom of Permanent Borehole Casing		NA
Top of Concrete		NA
Bottom of Concrete		NA
Top of Grout		NA
Bottom of Grout		NA
Top of Well Riser		+3'
Bottom of Well Riser		12.5
Top of Well Screen		12.5
Bottom of Well Screen		17.5
Top of Peltonite Seal		0
Bottom of Peltonite Seal		10.5
Top of Gravel Pack		10.5
Bottom of Gravel Pack		17.5
Top of Natural Cave-In		17.5
Bottom of Natural Cave-In		17.5
Top of Groundwater		~16'
Total Depth of Borehole		17.5



Top of Protective Casing +3.1'

Top of Riser (survey elev.) +3'

Ground Surface 0

Top of Seal 0

Top of Gravel Pack 10.5

Top of Screen 12.5

Bottom of Screen 17.5

Bottom of Borehole 17.5

Comments Well completed with above Ground well varly.

Bentonite seal hydrated w/ 10 gal potable water

Geologist Signature C. Chance

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

4000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # BH-6
Well # MW8
Page 1 of 1

Project Name PNM HAMPTON 4M
Project Number 18929 Phase 1001
Project Location HAMPTON 4M

Elevation _____
Borehole Location Center of Site
GWL Depth ~20' BGS
Logged By CM CHANCE
Drilled By K Padilla
Date/Time Started 12/11/97
Date/Time Completed 12/11/97

Well Logged By CM CHANCE
Personnel On-Site D CHARLEY, P Archuleta
Contractors On-Site _____
Client Personnel On-Site M. Sikeliansky, M. Garrison

Drilling Method 4 1/4 ID HSA
Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM			Drilling Conditions & Blow Counts
							BZ	BH	S/H	
0										
5										
10	1	10-12	18	Br/Gry mottled CLAY, dry, stiff, low-med plastic						2 1/1 - 1507h
15	2	14-16	24	Redish Br silty SAND, F-med sand, dense, sl moist						305 3/8 - 1520h
	3	16-18	24	Gry/Redish Br clayey SAND, vf-f sand, sl moist, med dense						206 4/2 - 1530h
	4	18-19	12	Gry/Redish Br CLAY, dry, low plastic, interbedded siltstone						112 3/4 - 1538h
20	5	20-21	12	Gry silty SAND, vf-f sand, moist, med dense						24 - 1544h
	6	22-23	4	Gry silty CLAY, stiff, high plastic, dry						0 - 1530
25										
30										
35										
40										

Comments:

Note: Sample #6 may have only been sluff. Only 4" of recovery
Will set 2" well @ 25' BGS

Geologist Signature

CM Chance

MONITOR WELL INSTALLATION FORM

Philip Services Corp.

4000 Monroe Rd.

Farmington, NM 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # BH6

Well # MWR

Page of

Project Name PNM Hampton 4M
Project Number 18929 Phase 1001.77
Site Location Hampton 4M

Elevation

Well Location Center of Site

GWL Depth ~20' BBS

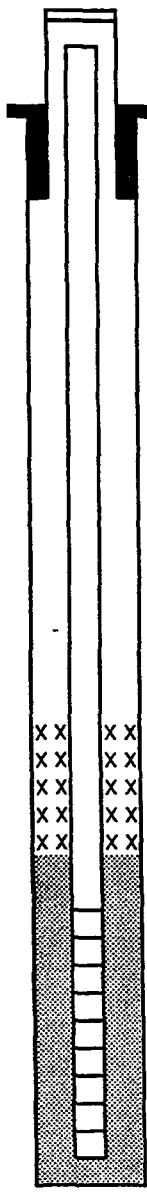
Installed By K PADILLA

On-Site Geologist C CHANCE
Personnel On-Site D Charley, P. Archuleta
Contractors On-Site
Client Personnel On-Site M. Sikalincey, M. Banner

Date/Time Started 12/11/97

Date/Time Complete 12/11/97

Depths in Reference to Ground Surface		
Item	Material	Depth (feet)
Top of Protective Casing		+3"
Bottom of Protective Casing		9"
Top of Permanent Borehole Casing		NT
Bottom of Permanent Borehole Casing		NT
Top of Concrete		NA
Bottom of Concrete		NA
Top of Grout		NA
Bottom of Grout		NA
Top of Well Riser		0
Bottom of Well Riser		10
Top of Well Screen		10
Bottom of Well Screen		25
Top of Peltonite Seal		0
Bottom of Peltonite Seal		8
Top of Gravel Pack		8
Bottom of Gravel Pack		25
Top of Natural Cave-In		25
Bottom of Natural Cave-In		25
Top of Groundwater		~20'
Total Depth of Borehole		25



Top of Protective Casing +3"

Top of Riser (survey elev.) 0

Ground Surface 0

Top of Seal 0

Top of Gravel Pack 8

Top of Screen 10

Bottom of Screen 25

Bottom of Borehole 25

Comments Well completed as surface mount. Locking well cap
+ padlock placed on well. Seal hydrated w/ 5gal potable water.

Geologist Signature Cory Chance

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

4000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # BH- 5

Well # NA

Page 1 of 1

Project Name PNM HAMPTON 4M

Project Number 18929 Phase 1001

Project Location HAMPTON 4M

Elevation _____

Borehole Location Wash N. of S.Ne

GWL Depth NA

Logged By CM CHANCE

Drilled By K Padilla

Date/Time Started 12/11/97

Date/Time Completed 12/11/97

Well Logged By CM CHANCE

Personnel On-Site D CHARLEY, P Archuleta

Contractors On-Site _____

Client Personnel On-Site M. S. Kellner, M. G. Gann

Drilling Method 4 1/4 ID HSA

Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM		Drilling Conditions & Blow Counts
							BZ	BH	
0									
5									
10	1	10-12	14	Br silty SAND, r-f sand, dry, loose					0% - 1125h
15	2	14-15	12	AA Br/Gry SILTSTONE, hard, dry + r gypsum parting					0% - 1125h
20	3	19-21	14	Gnn-DK Gnn CLAY, low plastic, dry, v. stiff, (tr moisture in sluff)					0% - 1140h
25	4	24-26	14	Gry silty CLAY, dry non plastic, v. stiff TDB 26'					0% - 1200h
30									
35									
40									

Comments: Did not encounter GW. Hit micst zone @ ~19-21' BGS.
No well set.

Geologist Signature

CM Chance

000000

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

4000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # BH- 1

Well #

Page 1 of 1

Project Name PNM HAMPTON 4M

Project Number 18839 Phase 6000

Project Location HAMPTON 4M

Elevation

Borehole Location IN WASH N. of Well pad

GWL Depth ~7.6' BGS

Logged By CM CHANCE

Drilled By K Padilla

Date/Time Started 10/29/97

Date/Time Completed 10/29/97

Well Logged By CM CHANCE

Personnel On-Site D CHARLEY

Contractors On-Site

Client Personnel On-Site

Drilling Method 4 1/4 ID HSA

Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recover (Inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM			Drilling Conditions & Blow Counts
							BZ	BH	S/H	
0										
5	1	3-5	24	Br clayey SAND, vf-F sand, loose, moist Bk silty SAND, vf-F sand, loose, moist			0		274 1264	0930 hr GW @ 7.6' BGS
10				TOB 8'						
15										
20										
25										
30										
35										
40										

Comments: Hit contamination @ ~5' BGS. BH hole plugged to surface
New well installed.

Geologist Signature

Cam Chance

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

1000 Monroe Road
Burlington, New Mexico 87401
(505) 326-2252 FAX (505) 326-2388

Borehole # BH-1-511
Well # MW 9
Page 1 of

Project Number 19584 Phase 6000.77
Project Name Burlington Resources Hampton 4M
Project Location Hampton 4M

Elevation _____
Borehole Location LTR: S: T: R: S. of Production #17
GWL Depth 22.7' BGS
Drilled By K. PADILLA
Well Logged By C. CHANCE
Date Started 5/11/98
Date Completed 5/11/98

Drilling Method 4 1/4 ID HSA
Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM			Drilling Conditions & Blow Counts
							BZ	BH	g/h	
0										
5	1	5-7	24	Lt Br clayey SAND, F-med sand, tr coarse, loose, dry			0	0	0	0905hr
10	2	10-12	18	Lt Br silty SAND, med-coarse sand, loose, dry			0	0	0	0911
15	3	15-17	18	Br sandy CLAY, med vF sand, low plastic, stiff, dry			0	0	0	0918hr
20	4	20-	12	Br clayey SAND, vF-F sand, dense, moist			0	0	0	0925hr
25	5	25-	6	Gry weathered SANDSTONE med sand, poorly cemented, tndy moist			0	0	0	0939
30	6	30-32	24	Gry SAND, coarse, well sorted v dense, SATURATED			0	0	NA	0952
35				TDB 33.5						
40										

Comments:

GL @ 22.7' @ 0952 hr. GW @ 22.7 after setting 10 min. Will set well
@ ~ 33' BGS

Geologist Signature

Coy Chance

600002

MONITOR WELL INSTALLATION FORM

Philip Services Corp.

4000 Monroe Rd.

Farmington, NM 87401

(505) 328-2262 FAX (505) 328-2388



Borehole # BH1-511

Well # MW9

Page 1 of 1

Project Name BR HAMPTON 4M

Project Number 19584

Phase 6000

Site Location Hampton 4M

On-Site Geologist C CHANCE

Personnel On-Site

Contractors On-Site

Client Personnel On-Site ED Harley

Elevation

Well Location S of Production/r

GWL Depth 22.7

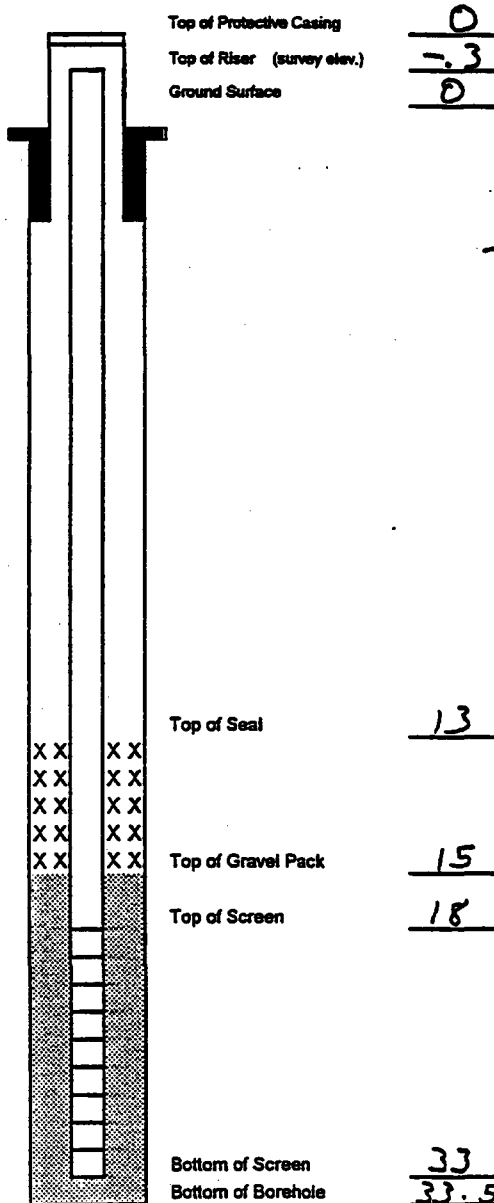
Installed By K PADILLA

Date/Time Started 5/11/98

Date/Time Completed 5/11/98

Depths in Reference to Ground Surface

Item	Material	Depth (feet)
Top of Protective Casing		0
Bottom of Protective Casing		1
Top of Permanent Borehole Casing		NA
Bottom of Permanent Borehole Casing		NA
Top of Concrete		0
Bottom of Concrete		1
Top of Grout		1
Bottom of Grout		13
Top of Well Riser		30
Bottom of Well Riser		18
Top of Well Screen		18
Bottom of Well Screen		33
Top of Peltonite Seal		13
Bottom of Peltonite Seal		15
Top of Gravel Pack		15
Bottom of Gravel Pack		33
Top of Natural Cave-in		33
Bottom of Natural Cave-in		33.5
Top of Groundwater		22.7
Total Depth of Borehole		33.5



Comments Set well @ 33' BGS. Seal hydrated w/ 10 gal potable water. Set as Flush mount w/ locking well cap + padlock

Geologist Signature

Cory Chance

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

4000 Monroe Road

Burlington, New Mexico 87401

(505) 326-2262 FAX (505) 326-2388



Borehole # BH-2-511

Well # MW10

Page 1 of 1

Project Number 19584 Phase 6000.77

Project Name Burlington Resources Hampton 4M

Project Location Hampton 4M

Elevation

Borehole Location LTR: S: T: R: S. of Dehy

GWL Depth 24.7'

Drilled By K. PADILLA

Well Logged By C. CHANCE

Date Started 5/11/98

Date Completed 5/11/98

Drilling Method 4 1/4 ID HSA

Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (Inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM			Drilling Conditions & Blow Counts
							BZ	BH	S/H	
0										
5	1	5-7	24	Br silty SAND, f-med sand, about silt, loose, dry			0	0	0	1213h
10	2	10-12	12	Br silty SAND, f-med sand, tr coarse, med silt, dense, dry			0	0	0	1218h
15	3	15-16	5	Reddish br/gray SAND, med-coarse, sand, med silt, tr cementation, dense, dry			0	0	5/33	1228h
20	4	20-21	8	Reddish br/gray clayey SAND, f- med sand, dense, dry			0	0	39/43	1235h
25	5	25-26	4	Gray SAND, med-coarse, well sorted, v. dense, saturated			0	220	5/66	1245h
	6	26-27	5	Gray silty CLAY, v stiff, nonplastic, dry AA					5/66	Hard doing 1307h
30				TDB 27'						
35										
40										

Comments:

GW @ 24.7' after setting 10 min. Will set well @ 27'.

Geologist Signature

Cory Cheney

600-00

MONITOR WELL INSTALLATION FORM

Philip Services Corp.
4000 Monroe Rd.
Farmington, NM 87401
(505) 328-2282 FAX (505) 328-2388

Borehole # PH2-511
Well # MW10
Page 1 of 1

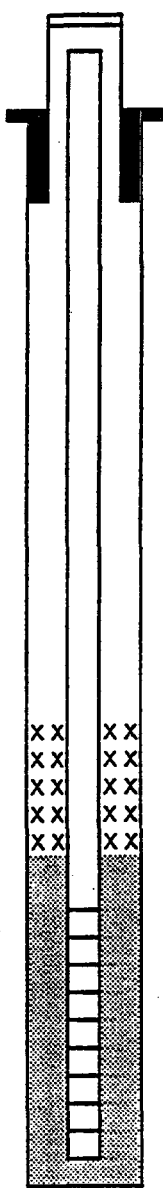
Project Name BR HAMPTON 4M
Project Number 19584 Phase 6000
Site Location Hampton 4M

Elevation _____
Well Location S. of Dehy
GWL Depth 24.7
Installed By K PADILLA

On-Site Geologist C CHANCE
Personnel On-Site _____
Contractors On-Site _____
Client Personnel On-Site ED Harley

Date/Time Started 5/11/98
Date/Time Completed 5/11/98

Depths in Reference to Ground Surface		
Item	Material	Depth (feet)
Top of Protective Casing		0
Bottom of Protective Casing		1
Top of Permanent Borehole Casing		NA
Bottom of Permanent Borehole Casing		NA
Top of Concrete		0
Bottom of Concrete		1
Top of Grout		1
Bottom of Grout		11
Top of Well Riser		.3
Bottom of Well Riser		17
Top of Well Screen		17
Bottom of Well Screen		27
Top of Peltonite Seal		11
Bottom of Peltonite Seal		13.6
Top of Gravel Pack		13.6
Bottom of Gravel Pack		27
Top of Natural Cave-In		27
Bottom of Natural Cave-In		27
Top of Groundwater		24.7
Total Depth of Borehole		27



Top of Protective Casing 0

Top of Riser (survey elev.) .3

Ground Surface 0

Top of Seal 11

Top of Gravel Pack 13.6

Top of Screen 17

Bottom of Screen 27

Bottom of Borehole 27

Comments Well set @ 27' BGS. Seal hydrated w/ 10 gal potable water
Well set w/ Flush mount valve, well cap pad lock

Geologist Signature C Chance

RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp.

4000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2282 FAX (505) 326-2388

Borehole # TPW-01
Well # _____
Page _____ of _____

Project Name HAMPTON 4m
Project Number 17877 Phase 6001
Project Location AZTEC

Elevation _____
Borehole Location South West of Site
GWL Depth 22.45
Logged By S. Pope
Drilled By K. Padilla
Date/Time Started 0845 6/5/97
Date/Time Completed 1015 6/5/97

Well Logged By S. Pope
Personnel On-Site D. Chien-Lien
Contractors On-Site _____
Client Personnel On-Site _____

Drilling Method HSA 4 1/4 ID
Air Monitoring Method WID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (Inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU			Drilling Conditions & Blow Counts
							BZ	BH	S	
0										
5	1	5 7	24	Brown Sand, Med Co grained, trace sand stone frags, Soft Moist			0	0	0	Loose Fill
10	2	10 11.5	18	SAA			0	0	0	
15	3	15 17	8	Brown-Grey SAND, trace clay Med Co grained Very hard some cementation Moist			0	0	0	Sample @ 15'
20	4	20 22	12	Dark Grey Sand trace clay, cemented Med Co grained, Very Dense, Moist	21		0	0	0	Refusal @ 21' w/ spoon
25	5	25 27	10	Greenish Gray SAND, Med-Co grained Very hard, wet @ Bottom Spoon	36 V					Refusal @ 8" on spoon
30	6	30 32	24	Gray SAND COARSE Green in well Sorted, Hard, Saturated						Refusal @ 8"
35				TOB 30'						
40										

Comments: 1015 Set 7" w/10 screen in hole Pulled back 5' well Prior to Trap well T.NST
73.2 22.45 @ Sample point

Geologist Signature

MONITORING WELL INSTALLATION RECORD

Philip Environmental Services Corp.
4000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Borehole # TPW-01
Well # _____
Page ____ of ____

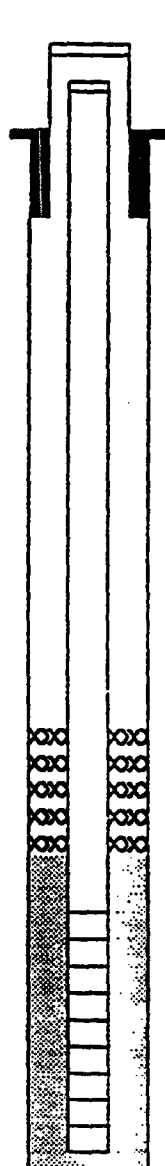
Project Name HANUDON 4M
Project Number 18777 Phase Geol
Project Location ARIZONA

Elevation _____
Well Location North West Side of Site
GWL Depth 22.45
Installed By K. Padilla

On-Site Geologist S. POSE
Personnel On-Site D. Chiriquy
Contractors On-Site _____
Client Personnel On-Site _____

Date/Time Started 1015 6/5/97
Date/Time Completed 1035 6/5/97

Depths in Reference to Ground Surface		
Item	Material	Depth
Top of Protective Casing		—
Bottom of Protective Casing		—
Top of Permanent Borehole Casing		—
Bottom of Permanent Borehole Casing		—
Top of Concrete		—
Bottom of Concrete		—
Top of Grout		—
Bottom of Grout		—
Top of Well Fiser		1.4
Bottom of Well Fiser		19.1
Top of Well Screen		19.1
Bottom of Well Screen		29.5
Top of Peltonite Seal		—
Bottom of Peltonite Seal		—
Top of Gravel Pack		—
Bottom of Gravel Pack		—
Top of Natural Cave-In		—
Bottom of Natural Cave-In		—
Top of Groundwater		22.45
Total Depth of Borehole		30.0



Top of Protective Casing —

Top of Fiser 4

Ground Surface —

Top of Seal N/A

Top of Gravel Pack N/A

Top of Screen 19.1

Bottom of Screen 29.5

Bottom of Borehole 30

Comments: 1015 INSTALLED 2" TEMP WELL w/ 10' SCREEN WATER CAME UP TO 22.45
Collect SAMPLE @ 1035 w/ Clean. No down. Back Filled Borehole TO w/ Hole Plug

Geologist Signature S. T. Pose

RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp.

4000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # TPW-02
Well # TPW-02
Page of

Project Name HAMPTON 4m
Project Number 17877 Phase 6001
Project Location ATEL

Elevation _____
Borehole Location Midway North End of Site
GWL Depth 23.95
Logged By S. Pope
Drilled By K. Padilla
Date/Time Started 1145 6/5/97
Date/Time Completed 1300 6/5/97

Well Logged By S. Pope
Personnel On-Site D. Chaudhary
Contractors On-Site _____
Client Personnel On-Site _____
Drilling Method HSA 4 1/4 ID
Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (Inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Unit: NDU BZ BH S			Drilling Conditions & Blow Counts
0										
5	1	5-7	24	Brown SAND Med-LO grained, Some Clay Moist, Loose			0	0	0	Fill
10	2	10-12	12	Lt Brown SAND Med CO grained Very dense possibly cemented. Trace moisture			0	0	0	Refusal 1"
15	3	15-17	12	SAT Lt Brown - Yellow DE Brown Clay, Very stiff, trace moisture, Calcium crytals in voids,		15.5	0	0	13	Refusal @ 1'
20	4	20-22	12	Brown SAND, Some clay Med-LO grained, Hard, trace moisture,		18.0	0	0	89	Refusal @ 1'
25	5	25-27	20	Gray Abd CO grained SAND Very hard, saturated to 26' Gray Silty Clay, Very Dense trace fine sand, moist	23.0	23.95	0	0	187	
30				TOB 25		21.0	0	0	141	Refusal @ 22" HS = 851
35										
40										

Comments:

water came up to 23.38 after sitting 10 mins Drill to 27' INSTALL TEMP DWELL
WATER Level coming up slowly will pull Augers and leave well IN. MOVE TO Next location

Geologist Signature

S. T. Pope

Philip Environmental Services Corp.
4000 Morree Road
Farmington, New Mexico 87401
(505) 328-2282 FAX (505) 328-2388

Borehole # _____
Well # TPW-02
Page _____ of _____

Project Name Hampton 4m
Project Number 17877 Phase 1000
Project Location AZTEL N/A

On-Site Geologist S. Pope
 Personnel On-Site D. Charley
 Contractors On-Site —
 Client Personnel On-Site —

Elevation _____
Well Location MIDWAY NORTH END OF SITE
GWL Depth 23.38
Installed By K. PADILLA

Date/Time Started 1300 6/5/97
Date/Time Completed 1400 6/5/97

Depths in Reference to Ground Surface		
Item	Material	Depth
Top of Protective Casing		—
Bottom of Protective Casing		—
Top of Permanent Borehole Casing		—
Bottom of Permanent Borehole Casing		—
Top of Concrete		—
Bottom of Concrete		—
Top of Grout		—
Bottom of Grout		—
Top of Well Fiser		+3.0
Bottom of Well Fiser		14.6
Top of Well Screen		14.6
Bottom of Well Screen		25
Top of Peltonite Seal		—
Bottom of Peltonite Seal		—
Top of Gravel Pack		—
Bottom of Gravel Pack		—
Top of Natural Cave-In	Surface	14.6
Bottom of Natural Cave-In		25
Top of Groundwater		≈ 23.38
Total Depth of Borehole		250

Item	Material	Depth
Top of Protective Casing		—
Top of Fiser		+3.0
Ground Surface		—
Top of Seal		—
Top of Gravel Pack		—
Top of Screen		14.6
Bottom of Screen		25
Bottom of Borehole		25

Comments: Product Thickness @ 1555 = .39 FE
6/6/97 Product Thickness = .96 FE. 6/9/97 Product Thickness = 2.98 FEET

Geologist Signature

RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp.
4000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2282 FAX (505) 326-2388

Borehole # TPW-03
Well # _____
Page _____ of _____

Project Name HAMPTON 4M
Project Number 17877 Phase 6001
Project Location ARIZONA, NM

Elevation _____
Borehole Location NORTH EAST SIDE OF SITE
GWL Depth NOT ENCOUNTERED
Logged By S. POPE
Drilled By K. PADILLA
Date/Time Started 1415 6/5/97
Date/Time Completed 15:30 6/5/97

Well Logged By S. POPE
Personnel On-Site D. Chenley
Contractors On-Site _____
Client Personnel On-Site _____

Drilling Method HSA 4 1/4 ID
Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (Inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU SZ BH S			Drilling Conditions & Blow Counts
0										
5	1	5 7	6	BROWN SAND MED- CO Grained Very hard, trace Moisture Some Consolidation			0	0	0	Refusal @ 6" 1430
10	2	10 12	18	Lt Brown - Reddish BROWN SAND. Med- CO Grained, trace silt, Some Oxidizing, trace Moisture			0	0	0	Refusal @ 18" 1437
15	3	15 17	12	Grey SAND FINE Med Grained w/ Some CLAY (Shale) very hard - Consolidated + trace moisture		15	0	0	0	Refusal @ 12" 1450
20	4	20 21	6	SAA Very hard			0	0	0	Refusal @ 6" 1502
25	5	25 27	12"	Grey - DK GRAY SLITY SAND STONE Consolidated, trace Clay, Trace Moisture VERY HARD			0	0	0	REFUSAL @ 12" 1520
30				TOB-2C						
35										
40										

Comments:

NO EVIDENCE OF MOISTURE @ THIS LOCATION WILL NOT DRILL DEEPER
Pull-out and Grant

Geologist Signature

[Signature]

RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp.

4000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2262 FAX (505) 326-2388

Borehole #

Well #

Page

of

TPW-OK

Project Name

Project Number

Project Location

HAMPTON 4M

17877

Phase

6001

AZTEC, N.M.

Well Logged By

Personnel On-Site

Contractors On-Site

Client Personnel On-Site

S. Pope

D. Chumley

Drilling Method

Air Monitoring Method

HSA 4/14/17

PID

Elevation

Borehole Location

GWL Depth

Logged By

Drilled By

Date/Time Started

Date/Time Completed

200/19.0 After Sitting

S. Pope

R. Padilla

1610 6/5/97 1030 6/6/97

1645 6/5/97 0930 6/6/97

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (Grains)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU			Drilling Conditions & Blow Counts
							BZ	BH	S	
0										
5	1	5 7	10	Brown - Lt Brown SAND Med-Co grain Very hard some cementation exists Trace moisture.			0	0	0	Refusal @ 10" 1621
10	2	10 12	10	SAD trace CLAY, Mostly Coarse Grained			0	0	0	Refusal @ 10" 1628
15	3	15 17	12"	SAA			6	0	0	Refusal @ 12" 1638 - STOP FOR DAY
20	4	20 27	18	GRAY SAND w/ SOME CLAY, Med-Co grain w/ SOME CEMENTATION Itavol, WET		20	20	0	15	Head space = 33ppm Refusal @ 18" No odor on sample 0845
25	5	25 27	10	GRAY SILT CLAYey SAND, Fine- Very Fine grained somewhat cemented Very hard, Trace moisture		25	0	0	0	Refusal @ 10" OUT OF WATER will PUT WELL IN AND PULL BACK TO 10" 0919
30				TOB-25						
35										
40										

Comments:

AFTER INSTALLING WELL LETTING SIT 10-15 MIN WATER @ 27.5 L/H/11 L/SIT
AND MOVE TO NEXT LOCATION

Geologist Signature

Steve T. Pope

MONITORING WELL INSTALLATION RECORD

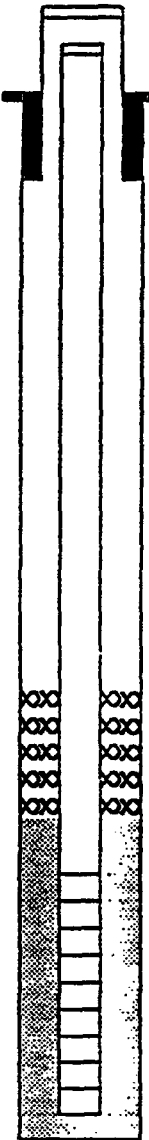
Philip Environmental Services Corp.
4000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Borehole # TPW-01
Well # TPW-04
Page of

Project Name HAMPTON 4M
Project Number 18777 Phase 6001
Project Location ATEC, NM
On-Site Geologist S. Pope
Personnel On-Site D. C. Cheeky
Contractors On-Site
Client Personnel On-Site

Elevation
Well Location Middle of Site
GWL Depth 1.0
Installed By R. Phillips
Date/Time Started 0920 6/6/97
Date/Time Completed 0945 6/6/97

Depths in Reference to Ground Surface		
Item	Material	Depth
Top of Protective Casing		—
Bottom of Protective Casing		—
Top of Permanent Borehole Casing		—
Bottom of Permanent Borehole Casing		—
Top of Concrete		—
Bottom of Concrete		—
Top of Grout		—
Bottom of Grout		—
Top of Well Riser		+1.0
Bottom of Well Riser		14.6
Top of Well Screen		14.6
Bottom of Well Screen		25
Top of Peltonite Seal		—
Bottom of Peltonite Seal		—
Top of Gravel Pack		—
Bottom of Gravel Pack		—
Top of Natural Cave-In		14.6
Bottom of Natural Cave-In		25
Top of Groundwater		2.0
Total Depth of Borehole		25



Top of Protective Casing

Top of Riser +1.0

Ground Surface

Top of Seal

Top of Gravel Pack

Top of Screen 14.6

Bottom of Screen 25.0

Bottom of Borehole 25.0

Comments: WL = 17.0 FLBG5 PRIOR TO SAMPLING @ 1150

Geologist Signature

S. Pope

000001

RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp.

4000 Monroe Road

Farmington, New Mexico 87401

(505) 328-2262 FAX (505) 328-2388

Borehole # TPW-05
Well # TPW-05
Page 1 of 1

Project Name HAMPTON 4m
Project Number 17877 Phase 6001
Project Location Acetel, NM

Well Logged By C. Pope
Personnel On-Site D. Charley
Contractors On-Site
Client Personnel On-Site

Elevation
Borehole Location SE CORNER OF SITE
GWL Depth 15.0
Logged By S. Pope
Drilled By KPADULA
Date/Time Started 1000 6/6/97
Date/Time Completed 1110 6/6/97

Drilling Method HSA 4 1/4 ID
Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU			Drilling Conditions & Blow Counts
							BZ	SH	S	
0										
5	1	5 7	10	BROWN-TAN SAND w/TRACE SILT ANGULAR, Med-Co Grained, some Oxi stains, hard, Trace Moisture			0	0	0	REFUSAL @ 10" 1025
10	2	10 12	12	SAA			0	0	20	REFUSAL @ 12" 1035 No Hydrocarbon odor
15	3	15 17	12	SAA, Trace Clay, WET No Free Water			0	3	470	REFUSAL @ 12" Strong HC odor No Measurable Water I hole,
20	4	20 21	24	GRAY SAND Med-Co Grained, trace Silt Hard, SATURATED, Trace Gravel		20	0	0	3	REFUSAL @ 20" WL 17.45 (1110)
25				GRAY, CLAY/Shale very hard, fine some visible bedding planes, Trace Moisture.		21.5				1210 WL 14.75 SAMPLE @ 1215 No Free phase
30				TDB-20						
35										
40										

Comments:

Geologist Signature

[Signature]

MONITORING WELL INSTALLATION RECORD

Philip Environmental Services Corp.
4000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Borehole # _____
Well # TPW-05
Page _____ of _____

Project Name HAMPTON 4 M
Project Number 17877 Phase 6001
Project Location ATEL NM

Elevation _____
Well Location S. EAST CORNER OF SITE
GWL Depth 14.75
Installed By K. PADDILLIA

On-Site Geologist S. POPE
Personnel On-Site D. Charley
Contractors On-Site _____
Client Personnel On-Site _____

Date/Time Started 1110 6/16/97
Date/Time Completed 1130 6/16/97

Depths in Reference to Ground Surface		
Item	Material	Depth
Top of Protective Casing		—
Bottom of Protective Casing		—
Top of Permanent Borehole Casing		—
Bottom of Permanent Borehole Casing		—
Top of Concrete		—
Bottom of Concrete		—
Top of Grout		—
Bottom of Grout		—
Top of Well Fiser		+4
Bottom of Well Fiser		9.6
Top of Well Screen		10.6 9.6
Bottom of Well Screen		20
Top of Peltonite Seal		—
Bottom of Peltonite Seal		—
Top of Gravel Pack		—
Bottom of Gravel Pack		—
Top of Natural Cave-In		14
Bottom of Natural Cave-In		20
Top of Groundwater		14.75
Total Depth of Borehole		20



Top of Protective Casing —

Top of Fiser +4

Ground Surface —

Top of Seal —

Top of Gravel Pack —

Top of Screen 9.6

Bottom of Screen 20

Bottom of Borehole 20

Comments: 14.75 WL Prior to SAMPLING @ 1210. SAMPLED @ 1215

Geologist Signature

S. T. Pope

000011

RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp.
4000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Borehole #
Well # TDW-06
Page of

Project Name HAMPTON 4m
Project Number 17877 Phase 10001
Project Location ARIZONA

Elevation _____
Borehole Location _____
GWL Depth 15.0 BGS
Logged By S. POPE
Drilled By R. PATILLA
Date/Time Started 1345 6/6/97
Date/Time Completed 1505 6/6/97

Well Logged By S. POPE
Personnel On-Site D. CHERRY
Contractors On-Site _____
Client Personnel On-Site _____

Drilling Method HSA 4 1/4 ID
Air Monitoring Method PID

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU BZ BH S			Drilling Conditions & Blow Counts
0										
5										
	1	5 7	16"	BROWN SAND Med Grained, trace clay, very hard some cementation moist.			0	0	0	Refusal @ 16" 1351
10										
	2	10 12	15"	SAP GRAY SAND w/ clay, Fine - Med Grained, Moist, Very Hard		11.5	0	0	0	Refusal at 18"
15										
	3	15 17	16"	Brown-Reddish Brown SAND w/ Some Clay, Med-Co SAND, Med, Moist Wet.		15.1	0	0	61	Refusal @ 14" Not Black coloration in bottom 4" of soil collected sample No Free WATER
20										
	4	20 22	18"	Greenish-Green Clay/Shale, Trace Fine SAND, Hard, Trace Moisture		20	0	0	0	Refusal @ 18"
25										
	5	25 27	10"	SAP			0	0	0	Refusal @ 28" 1505
30				TOB-25						
35										
40										

Comments:

NO WATER Between 20-25 will Backfill to 20 w/ hole plus Put screen in Pull up to 14 to see if water will accumulate Put well in @ 1520 Pull casing

Geologist Signature

John T. Pope

MONITORING WELL INSTALLATION RECORD

Philip Environmental Services Corp.
4000 Marvco Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Borehole # _____
Well # TPW06
Page _____ of _____

Project Name HARRISON 4M
Project Number 17877 Phase 6001
Project Location _____

Elevation _____
Well Location _____
GWL Depth 15.0
Installed By K. PAVILLA

On-Site Geologist S. Pope
Personnel On-Site D. Charley
Contractors On-Site _____
Client Personnel On-Site _____

Date/Time Started 6/6/97 1505
Date/Time Completed 6/6/97 1525

Depths in Reference to Ground Surface		
Item	Material	Depth
Top of Protective Casing		—
Bottom of Protective Casing		—
Top of Permanent Borehole Casing		—
Bottom of Permanent Borehole Casing		—
Top of Concrete		—
Bottom of Concrete		—
Top of Grout		—
Bottom of Grout		—
Top of Well Fiser		.4
Bottom of Well Fiser		9.6
Top of Well Screen		9.6
Bottom of Well Screen		20
Top of Peltonite Seal		—
Bottom of Peltonite Seal		—
Top of Gravel Pack		—
Bottom of Gravel Pack		—
Top of Natural Cave-In		9.6
Bottom of Natural Cave-In		20
Top of Groundwater		15
Total Depth of Borehole		25



Top of Protective Casing —

Top of Fiser .4

Ground Surface —

Top of Seal —

Top of Gravel Pack —

Top of Screen 9.4

Bottom of Screen 20

Bottom of Borehole 25

Comments: W/L = 15.0 @ 1710 PRIOR TO SAMPLING. HOLE PLUGGED
BOREHOLE TO 20 BEFORE INSTALLING SCREEN

Geologist Signature

S. T. Pope 000020

RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp.
4000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Borehole # _____
Well # TPW-07
Page _____ of _____

Project Name Hampton 4m
Project Number 17877 Phase WPP 6001
Project Location AZTEC

Elevation _____
Borehole Location TANK AREA
GWL Depth 15.6
Logged By S. POPE
Drilled By K. PADILLA
Date/Time Started 1540 6/6/97
Date/Time Completed 1620 6/6/97

Well Logged By S. POPE
Personnel On-Site D. Chavira
Contractors On-Site _____
Client Personnel On-Site _____

Drilling Method HSA 4 1/4 ID
Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (Inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (Feet)	Air Monitoring Units: MDU			Drilling Conditions & Blow Counts
							BZ	BH	S	
0										
5	1	5 7	7"	BROWN SAND Med-Co Grainer Very Hard, Trace Moisture. Some Lamination.			0	0	0	Refusal @ 7" 1553
10	2	10 12	12"	SAA			0	0	0	Refusal @ 12"
15	3	15 17	12"	SAA trace Sand, Wet		15.0	0	13	948	REFUSAL @ 12" Head Space = 1175 ppm
20	4	20 22	14"	GRAY SAND Coarse Grained, trace clay - Very hard, Saturated Gray CLAY/Shale, Trace Fine Sand and SILT Very hard, Trace Moisture		20 21	0 0	0 0	3 0	Refusal @ 12" 1620 Will put well into 20-10 screen for WATER SAMPLE
25				TOB-20						
30										
35										
40										

Comments:

70.90

Geologist Signature

Steve T. Pope

MONITORING WELL INSTALLATION RECORD

Philip Environmental Services Corp.
4000 Marvae Road
Farmington, New Mexico 87401
(506) 326-2262 FAX (506) 326-2388

Borehole # TPW-07
Well # _____
Page _____ of _____

Project Name Hampton 2/00

Project Number 17577 Phase _____

Project Location ACTEC NPA

On-Site Geologist S. Pope

Personnel On-Site _____

Contractors On-Site _____

Client Personnel On-Site _____

Elevation _____

Well Location TANK AREA

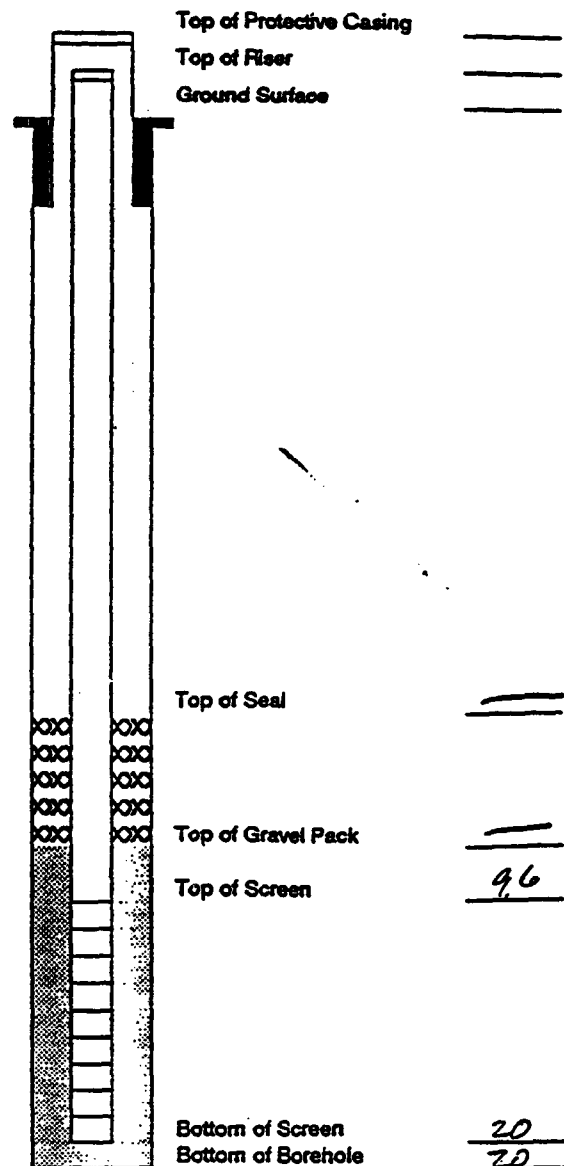
GWL Depth 14.6

Installed By K. PADDILLA

Date/Time Started 1620 6/16/97

Date/Time Completed 1645 6/16/97

Depths in Reference to Ground Surface		
Item	Material	Depth
Top of Protective Casing		—
Bottom of Protective Casing		—
Top of Permanent Borehole Casing		—
Bottom of Permanent Borehole Casing		—
Top of Concrete		—
Bottom of Concrete		—
Top of Grout		—
Bottom of Grout		—
Top of Well Riser		+ 4
Bottom of Well Riser		9.6
Top of Well Screen		9.6
Bottom of Well Screen		20
Top of Peltonite Seal		—
Bottom of Peltonite Seal		—
Top of Gravel Pack		—
Bottom of Gravel Pack		—
Top of Natural Cave-In		9.6
Bottom of Natural Cave-In		20
Top of Groundwater		14.6
Total Depth of Borehole		20



Comments: WEL PRICE TO SAMPLING 14.6 @ 1738

Geologist Signature

S. Pope

600710

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.
000 Monroe Road
Farmington, New Mexico 87401
505-262-2622 FAX (505) 328-2388

Borehole # BH- 1
Well #
Page 1 of 1 MW-11

Project Number 20484 Phase 1001
Project Name BR HAMPTON DRILL QB
Project Location HAMPTON 44M

Elevation
Borehole Location LTR: S: T: R:
SWL Depth 55'
Drilled By K. PADILLA
Well Logged By H. BRADBURY
Date Started 11/12/98
Date Completed 11/12/98

Drilling Method 4 1/4 ID HSA
Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units PPM			Drilling Conditions & Blow Counts
							BZ	BH	S/HS	
0										BZ=Breathing Zone BH=Borehole S/HS=Sample/Headspace
5	1	5-7	24	LT BR silty SAND, FINE SAND, loose, dry	SM		0	0	0	927 hrs
10	2	10-12	24	LT BR silty SAND, FINE SAND, loose, dry	SM		0	0	0	932 hrs
12	3	12-14	24	LT BR silty SAND, FINE SAND, loose, dry	SM		0	0	0	938 hrs
15	4	15-17	24	LT BR silty SAND FINE SAND loose, dry	SM		0	0	0	944 hrs
17	5	17-19	24	LT BR silty SAND, FINE SAND loose, dry	SM		0	0	0	949 hrs
20	6	20-22	24	LT BR silty SAND, FINE SAND loose, dry	SM		0	0	0	955 hrs
22	7	22-24	24	LT BR silty SAND FINE SAND, loose, dry	SM		0	0	0	1002 hrs
25	8	25-27	24	LT BR silty SAND, FINE SAND TR COARSE SAND, ROCK, loose, dry	SM		0	0	0	1014 hrs TRACE COBBLES PRESENT
27	9	27-29	24	LT BR silty SAND, FINE SAND TR COARSE SAND, hard, dry	SM		0	0	0	1018 hrs
30	10	30-32	24	LT BR silty SAND FINE SAND MED DENSE, dry	SM		0	0	0	1026 hrs
32	11	32-34	24	LT BR silty SAND, FINE SAND DENSE, dry	SM		0	0	0	1032 hrs
35	12	35-37	24	LT BR silty SAND, FINE SAND, DENSE dry			0	0	0	1041 hrs
40	13	40-42	24	LT BR sandy CLAY, FINE SAND low plasticity, stiff, dry			0	0	0	1055 hrs

Comments:

Geologist Signature Holly Bradbury 11/13/98

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.
1000 Monroe Road
Farmington, New Mexico 87401
608-326-2262 FAX (505) 328-2388

Borehole # BH-1
Well # _____
Page 2 of 2 mw-11

Project Number 20484 Phase 1001
Project Name BR HAMPTON DRILL 98
Project Location HAMPTON 4M

Elevation _____
Borehole Location LTR: S: T: R: _____
SWL Depth 39'
Drilled By K. PADILLA
Well Logged By H. BRADBURY
Date Started 11/12/98
Date Completed 11/12/98

Drilling Method 4 1/4 ID HSA
Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM			Drilling Conditions & Blow Counts
							BZ	BH	S/HS	
0										BZ=Breathing Zone BH=Borehole S/HS=Sample/Headspace
45	14	45-47	24	LT BR SANDY CLAY, FINE SAND, mod plastic, stiff, dry			0	0	0	1109 hrs
50	15	50-52	24	LT BR SANDY CLAY, FINE SAND, mod plastic, mod stiff, dry			0	0	0	1131 hrs
55							0	0		
60							0	0		
65							0	0		
70	70-72 16	70-72	24	LT BR SAND, FINE SAND, loose, moist			0	0	0	1247
35										
40										

Comments: STOPPED TAKING SPOON SAMPLES AT 55'. STARTED SAMPLING AT 70'
HIT WATER AT 55' WELL WAS INSTALLED.

Geologist Signature Holly Bradbury

EXP!

MONITORING WELL INSTALLATION RECORD

Philip Environmental Services Corp.
4000 Monroe Road
Farmington, New Mexico 87401
505/326-2262 FAX (505) 326-2388

Borehole # 1 MW-11
Well # _____
Page 1 of 1

Project Name BR HAMPTON DRILL 98

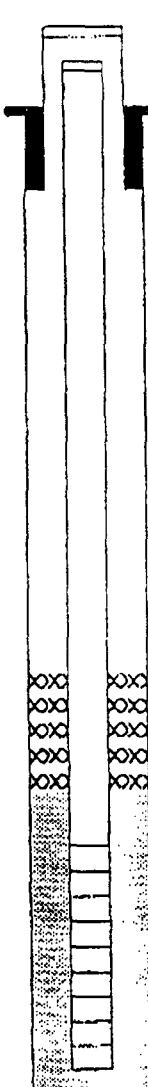
Project Number 20484 Phase 1001
Project Location HAMPTON #4M

On-Site Geologist H. BRADBURY
Personnel On-Site A. WERITO
Contractors On-Site _____
Client Personnel On-Site _____

Elevation _____
Well Location _____
GWL Depth 55'
Installed By K. PADILLA

Date/Time Started 11/12/98 1415
Date/Time Completed 11/13/98

Depths in Reference to Ground Surface		
Item	Material	Depth
Top of Protective Casing		
Bottom of Protective Casing		
Top of Permanent Borehole Casing		
Bottom of Permanent Borehole Casing		
Top of Concrete		0
Bottom of Concrete		0
Top of Grout		0'
Bottom of Grout		45'
Top of Well Riser		
Bottom of Well Riser		49'
Top of Well Screen		49'
Bottom of Well Screen	PVC	69'
Top of Peltonite Seal		45'
Bottom of Peltonite Seal		47'
Top of Gravel Pack		47'
Bottom of Gravel Pack		69'
Top of Natural Cave-In		
Bottom of Natural Cave-In		
Top of Groundwater		55'
Total Depth of Borehole		70'



Top of Protective Casing _____

Top of Riser _____

Ground Surface ○

Top of Seal 45'

Top of Gravel Pack 47'

Top of Screen 49'

Δ 55'

Bottom of Screen 69'

Bottom of Borehole 70'

Comments: WELL SET AS FLUSH MT W/ LOCKING WELL VAULT & PADLOCK.

Geologist Signature

H. Bradbury

000000

RECORD OF SUBSURFACE EXPLORATION

Philip Services Corporation

41000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # MW-12

Well #

Page 1 of 2

Project Name

Project Number 21030 Phase

Project Location 1 Hampton 4 mi

On-Site Geologist

Personnel On-Site K. Padilla, D. Padilla

Contractors On-Site

Client Personnel On-Site Ed Hasey Mark / PNM

Drilling Method 4 1/4 ID HSA

Air Monitoring Method PID

Elevation

Borehole Location 1

GWL Depth

Logged By P. Cheney

Drilled By K. Padilla

Date Started 5/5/99

Date Completed 5/5/99

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NPP BZ BT S	Drilling Conditions & Blow Counts
0								
5	1	2.5-5.0	18"	yellowish brown, unconsolidated coarse grained sand				BC-4 S/Hs-6.9 SS-0
	2	5-7.5	24"	same as 2.5-5				BC-6 S/Hs-31.5 SS-22.1
10	3	7.5-10	24"	Brown coarse grained sand, unconsolidated				BC-3 S/Hs-33.0 SS-1.9
	4	10-12.5	24"	yellow brown to brownish gray coarse sand, unconsolidated, hydrocarbon odor				BC-3 S/Hs-96.0 SS-27.3
15	5	12.5-15	5"	gray, very coarse grained sand, consolidated, wet	Note: 5" blow counts drove spoon 5"			BC-50 S/Hs-48.1 SS-1.3
	6	15-17.5	24"	dark gray, very coarse grained sand w/ pieces of PVC well screen.	Note: material in this interval was sand pack from previous well			BC-5 S/Hs-119.7 SS-3.1
20				TD = 19'				
25								
30								
35								
40								

Comments: TD of well = 19'. Well screen 19' bgs to 4' bgs. PVC Riser to 6' above ground (at request of client). Sand pack to 2' bgs, bentonite to surface. No surface completion

Geologist Signature

Paul Cheney 000020

MONITORING WELL INSTALLATION RECORD

Philip Environmental Services Corp.
4000 Merivac Road
Burlington, New Mexico 87401
Tel 376-2282 FAX (505) 376-2388

Borehole # MW-12
Well # MW-1A
Page 1 of 1

Project Name _____

Project Number 21050 Phase _____
Project Location Hampton 4m

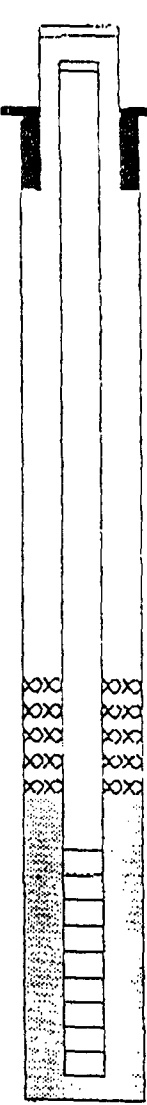
On-Site Geologist P. Cheney
Personnel On-Site G. Padilla, A. Padilla
Contractors On-Site Edgar
Client Personnel On-Site MARF, PNM

Elevation _____
Well Location _____
GWL Depth _____
Installed By K. Padilla

Date/Time Started 5/5/99 0830
Date/Time Completed 5/5/99

Temporary well installation

Depths in Reference to Ground Surface		
Item	Material	Depth
Top of Protective Casing		
Bottom of Protective Casing		
Top of Permanent Borehole Casing		
Bottom of Permanent Borehole Casing		
Top of Concrete		N.A.
Bottom of Concrete		N.A.
Top of Grout		N.A.
Bottom of Grout		N.A.
Top of Well Riser		<u>26' ABS</u>
Bottom of Well Riser		<u>3.50</u>
Top of Well Screen		<u>3.50'</u>
Bottom of Well Screen		<u>18.50'</u>
Top of Peltonite Seal		<u>Surface</u>
Bottom of Peltonite Seal		<u>1.50'</u>
Top of Gravel Pack		<u>1.50'</u>
Bottom of Gravel Pack		<u>19'</u>
Top of Natural Cave-In		
Bottom of Natural Cave-In		
Top of Groundwater		<u>12.5'</u>
Total Depth of Borehole		<u>19'</u>



Top of Protective Casing _____

Top of Riser 6' ABS

Ground Surface _____

Top of Grout Ground surface

Top of Gravel Pack 1.50'

Top of Screen 3.50'

Bottom of Screen 18.50'

Bottom of Borehole 19'

Comments: ABS = Above ground surface

Geologist Signature

Paul Cheney

000023

RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp.

4000 Menros Road

Farmington, New Mexico 87401

(505) 326-2282 FAX (505) 326-2388

Borehole # 13
Well # MW-13
Page 1 of 1

Elevation _____
Borehole Location _____
GWL Depth 19'
Logged By P. Cheney
Drilled By K. Padilla
Date/Time Started 5/14
Date/Time Completed 5/14

Project Name Hampton
Project Number _____
Project Location Hampton - A&K Location
Well Logged By P. Cheney
Personnel On-Site P. Cheney, K. Padilla, D. Padilla
Contractors On-Site _____
Client Personnel On-Site Ed Hasty
Drilling Method 1 1/4" TSA
Air Monitoring Method PTD

Depth (Feet)	Sample Interval	Sample Type & Recovery (Inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU			Drilling Conditions & Blow Counts
						BZ	BH	S	
0									
5	5 - 7	24"	yellowish brown, medium grained well sorted sand (fill)			2.0	0.0	3.7	BC = 4 S/115 = 1.1
10	10 - 12	24"	Fill (same as 5' - 7')			0.7	0.0	2.5	BC = 4 S/115 = 5.9
15	15 - 17	18"	very light gray, medium grained, well sorted sand w/ limonite staining			0.4		2.9	BC = 19 S/115 = 2.6
20	20 - 22	6"	gray, medium grained, poorly sorted sand w/ pea gravel. Last 2" in spoon was a grey sandy clay			0.4		0.7	BC = 50 (6") S/115 = 10.8
25	25 - 27		gray clays sand, very hard, dry						
30			TD = 25'						
35									
40									

Comments:

Geologist Signature _____

MONITORING WELL INSTALLATION RECORD

Philip Environmental Services Corp.
4000 Monroe Road
Farmington, New Mexico 87401
(505) 825-2282 FAX (505) 475-2388

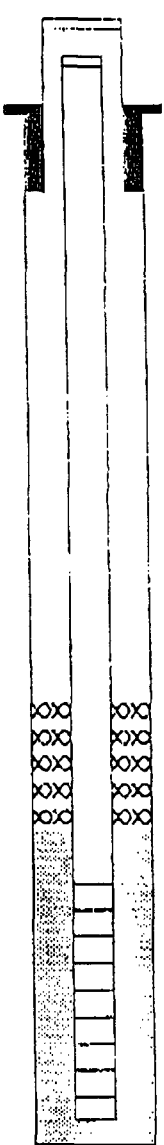
Borehole # 13
Well # MW-13 (Burlington)
Page 1 of 1

Project Name Burlington Drilling
Project Number 21057 Phase 1000.99
Project Location Hampton

On-Site Geologist P. Chaney
Personnel On-Site P. Chaney, R. Padilla, A. Padilla
Contractors On-Site
Client Personnel On-Site E. J. Harvey

Elevation _____
Well Location Hampton
GWL Depth 19'
Installed By R. Padilla
Date/Time Started 5/19
Date/Time Completed 5/19

Depths in Reference to Ground Surface		
Item	Material	Depth
Top of Protective Casing		
Bottom of Protective Casing		
Top of Permanent Borehole Casing		
Bottom of Permanent Borehole Casing		
Top of Concrete		
Bottom of Concrete		
Top of Grout		
Bottom of Grout		
Top of Well Riser		<u>Ground Surface</u>
Bottom of Well Riser		<u>15'</u>
Top of Well Screen		<u>15'</u>
Bottom of Well Screen		<u>25'</u>
Top of Peltonite Seal		<u>11'</u>
Bottom of Peltonite Seal		<u>13'</u>
Top of Gravel Pack		<u>13'</u>
Bottom of Gravel Pack		<u>25'</u>
Top of Natural Cave-In		<u>N.A.</u>
Bottom of Natural Cave-In		<u>N.A.</u>
Top of Groundwater		<u>19'</u>
Total Depth of Borehole		<u>25'</u>



Top of Protective Casing _____

Top of Riser _____

Ground Surface _____

Top of Seal 11'

Top of Gravel Pack 13'

Top of Screen 15'

Bottom of Screen 25'

Bottom of Borehole 25'

Comments: TD = 25' set 10' screen (2") from 25'-15', silica sand to 13', bentonite to 11'

Geologist Signature _____

000025

SB-1 North of Burlington
 ENVIROTECH INC. EXCAV.
 FIELD BORING LOG
 Directly North of
 BR's excavation

TEST BORING NO. BB-1	MONITOR WELL NO.	PROJECT NO. 91364-Z1	PROJECT NAME Burlington Resources	SHEET OF: 1
NPG. DESIGNATION OF DRILL Mobile 61 B		PROJECT LOCATION Hampton 44; 3830 South TSON RILL		
TYPE OF BIT: Hollow Stem Auger - Pilot @ 2' To		SURFACE ELEVATION OF TD OR HW		TOTAL DEPTH OF HOLE 20'
DATE	STARTED: 10-8-98 COMPLETED: 10-8-98	DRILLING CO. Envirotech		
COMPLETION TYPE: Backfilled - Native Soil		ENGINEER: HMB	GROUNDWATER DEPTH: 15'	TIME: 11:00
CREW: MARY COIN, JD				

SURFACE CONDITIONS:
 Bladed well Location; Coarse Hard SAND.

DSY FROM SURF.	SAMPLE TYPE	SAMPLE NO.	OWN READ IN RPM	BLOWS PER 6 IN.	UNCS	LOG OF MATERIAL/COMMENTS
						0-1 1/2" Light Lite Brown Silty Sand Native of the area Sample
1				2.0		1 1/2" - 2' @ 5' 50 comp blow to obtain 3" sample.
2				2.0		Coarse medium sandstone
3						1 1/2" to 2' Light Gray Coarse Sandstone
4						2' Coarse Lite Brown Sandstone
5			2.1			
6						
7						
8						
9						
0			1.4			50 comp blow 4" Sample Coarse Lt. Brown Sandstone
1						Minor gray clay nodules
2			2.4			50 blows 4 1/2" Light Gray Sandstone Fragments of Coarse
3			2.7			Light Brown Silty Sandstone
4			6.3			50 blows 4"
5			14.7			50 blows 8" Coarse medium Silty Sandstone 4"
6			15.3			Coarse Brown Sandstone 2"
7			7.7			50 blows 4" Gray Clayey Silty clay nodules 2"
8			3.3			50 blows 2"
9						50 blows 4"
0						50 blows 6"
1						50 blows 10" sample Gray Coarse Sandstone Sand
2						20' Total Depth

Sample
 8015
 8031

PUBLIC SERVICE COMPANY OF NEW MEXICO

SB-1

PROJECT	Hampton 4M 10/8/98	DEPARTMENT	
COMPONENT	Just north of Burlington Excavation	FILE	SHEET OF
		BY	DATE
		CHECKED	DATE

	<u>OVM</u>	<u>Blow Counts</u>	<u>USCS</u>
1			
2			Course 1+ brown SS. 1+ grey
3			3" 1+ grey 1" 2'
4			
5	2.1		2'
6			
7			
8			Course 1+ brown
9			
10		50 4"	
11		50 4.5"	
12		50 4"	
13		50 8"	
14			upper 4" Fine tan Sand
15	422 1300	50 4"	Rusty 2" course
16	1533	25 2"	Gray Clayey nodules 2"
17	77	30 6"	
18	18		GW ? Saturated
19		25 6"	med-course gray
20		25 10"	

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW**EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons**

SB-1

Client: Burlington Resources
Sample ID: SB - 1 @ 15 - 16'
Laboratory Number: E041
Chain of Custody No: 6348
Sample Matrix: Soil
Preservative: Cool
Condition: Cool and Intact

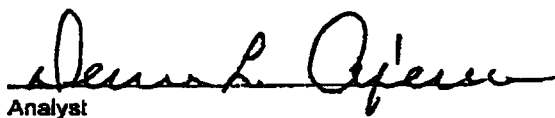
Project #: 91364-21
Date Reported: 10-10-98
Date Sampled: 10-08-98
Date Received: 10-08-98
Date Extracted: 10-09-98
Date Analyzed: 10-09-98
Analysis Requested: 8015 TPH

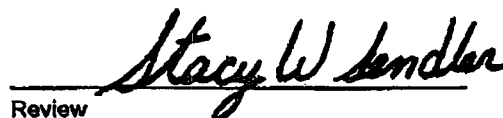
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	5.3	0.2
Diesel Range (C10 - C28)	21.1	0.1
Total Petroleum Hydrocarbons	25.4	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,
SW-846, USEPA, December 1996.

Comments: Hampton 4M.


Analyst


Review

600028

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW**EPA METHOD 8021
AROMATIC VOLATILE ORGANICS**

SB-1

Client:	Burlington Resources	Project #:	91364-21
Sample ID:	SB - 1 @ 15 - 16'	Date Reported:	10-09-98
Laboratory Number:	E041	Date Sampled:	10-08-98
Chain of Custody:	E041	Date Received:	10-08-98
Sample Matrix:	Soil	Date Analyzed:	10-09-98
Preservative:	Cool	Date Extracted:	10-09-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	335	8.8
Toluene	697	8.4
Ethylbenzene	181	7.6
p,m-Xylene	1,330	10.8
o-Xylene	478	5.2
Total BTEX	3,020	

ND - Parameter not detected at the stated detection limit.

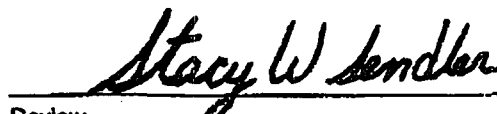
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	97 %
	Bromofluorobenzene	97 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Hampton 4M.


Analyst


Review

000000

SB-2

Between
MW-2 & MW-6 and MW#6North side of
Locust Ave.

ENVIROTECH INC.

FIELD BORING LOG

TEST BORING NO. SB 2	MONITOR WELL NO.	PROJECT NO. 91364-2.1	PROJECT NAME Burlington Resources	SHEET OF 1
WFO. DESIGNATION OF DRILL: Wells 613			PROJECT LOCATION Hampton 4M	
TYPE OF BIT: Hollow Stem Auger			SURFACE ELEVATION OF TO OR NW:	TOTAL DEPTH OF HOLE 23'
DATE	STARTED 10-8-98	DRILLING CO. Envirotech		
	COMPLETED 10-8-98	ENGINEER KWJ, MW		
COMPLETION TYPE Back Fill - Native Soil		CREW MC JD	GROUNDWATER DEPTH _____ TIME _____ Condensed @ 22'	

SURFACE CONDITIONS:

Black Water location - Fill over former PM.

DIST FROM SURF.	SAMPLE TYPE	SAMPLE NO.	GVN READ IN PPM	BLOWS PER 6 IN.	V308	LOG OF MATERIAL / COMMENTS
						0-13.75 Backfill / oo-broken Coarse SAND. 12:00 Noon
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						

PUBLIC SERVICE COMPANY OF NEW MEXICO

SB-2

PROJECT

Hampton 4M

10/8/73

DEPARTMENT

FILE

SHEET

OF

COMPONENT

Former PNM Pit area 5' north between MW-6 & MW-2

BY

DATE

CHECKED

DATE

OVM

Blow

USCS

F-11

Med - coarse

13-14

1086

So

3"

LAB

2000

So

8"

Med - coarse
17 Tan orange Weathered SI odor med

1294

So

2"

lt green

1020

So

8"

tan orange organics black coarse

663'

So

10"

Med coarse - lt gray orange

1728

So

10"

1416

So

6"

Med coarse Fairly well sorted
Most trace clay tan orange

1196

Saturated H₂O
LAB Sample

53'

Dr. ping Dr. P

CORR 1

ENVIROTECH LABS**PRACTICAL SOLUTIONS FOR A BETTER TOMORROW****EPA METHOD 8021
AROMATIC VOLATILE ORGANICS**

SB-2

Client:	Burlington Resources	Project #:	91364-21
Sample ID:	SB - 2 @ 15	Date Reported:	10-09-98
Laboratory Number:	E042	Date Sampled:	10-08-98
Chain of Custody:	6348	Date Received:	10-08-98
Sample Matrix:	Soil	Date Analyzed:	10-09-98
Preservative:	Cool	Date Extracted:	10-09-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	1,950	8.8
Toluene	9,960	8.4
Ethylbenzene	2,480	7.6
p,m-Xylene	15,990	10.8
o-Xylene	6,600	5.2
Total BTEX	36,960	

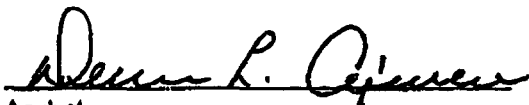
ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	100 %
	Bromofluorobenzene	100 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Hampton 4M.


Analyst


Review

000032

ENVIROTECH LABS**PRACTICAL SOLUTIONS FOR A BETTER TOMORROW****EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons**

SB-2

Client: Burlington Resources
Sample ID: SB-2 @ 15
Laboratory Number: E042
Chain of Custody No: 6348
Sample Matrix: Soil
Preservative: Cool
Condition: Cool and Intact

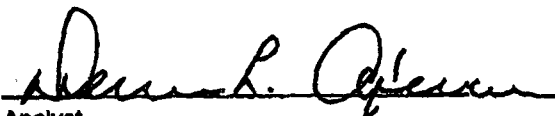
Project #: 91384-21
Date Reported: 10-10-98
Date Sampled: 10-08-98
Date Received: 10-08-98
Date Extracted: 10-09-98
Date Analyzed: 10-09-98
Analysis Requested: 8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	149	0.2
Diesel Range (C10 - C28)	44.5	0.1
Total Petroleum Hydrocarbons	194	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Hampton 4M.


Analyst


Review

000033