

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS

WELL NO. MW-1

Project Name: Linford Construction

Project Location: 2850 Poplar Street, Oakland, CA

Page 1 of 1

Driller: Gregg Drilling

Type of Rig: Mobil B - 53

Type and Size of Auger: 8-3/4" O.D., H.S.

Logged By: WCL

Date Drilled: 04/30/93

Checked By: M. Marelo, R.G.

WATER AND WELL DATA

Depth of Water First Encountered: ~ 15.5'

Total Depth of Well Completed: 22.0'

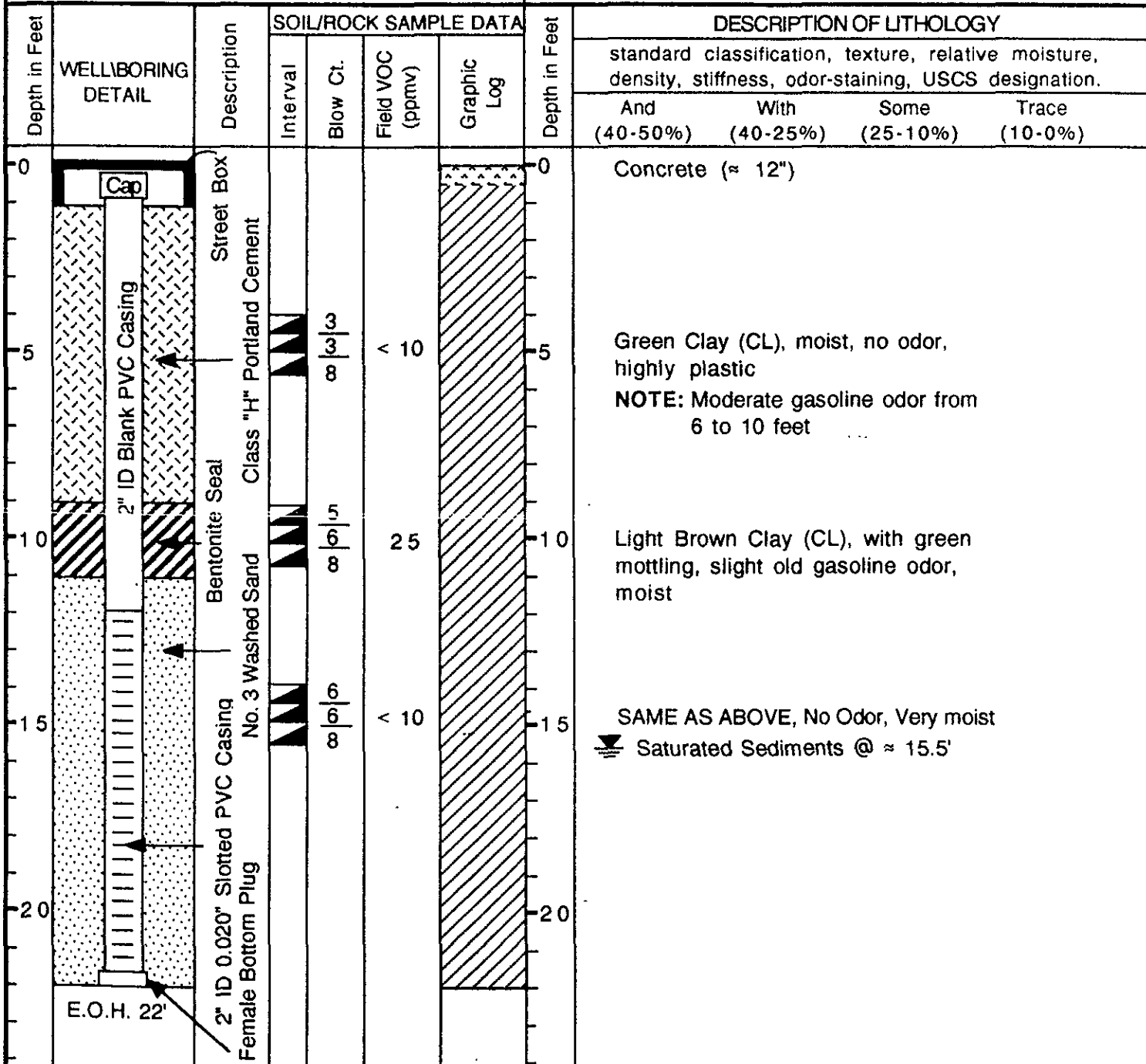
Well Screen Type and Diameter: 2" Diameter Schedule 40 PVC

Static Depth of Water in Well: 5.43' Below T.O.C.

Well Screen Slot Size: 0.020"

Total Depth of Boring: 22'

Type and Size of Soil Sampler: 2" I.D., Calif. Split-Spoon



SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS

WELL NO. MW-2

Project Name: Linford Construction

Project Location: 2850 Poplar Street, Oakland, CA

Page 1 of 1

Driller: Gregg Drilling

Type of Rig: Simco 2400 SK1

Type and Size of Auger: 6-1/2" O.D., H.S.

Logged By: WCL

Date Drilled: 04/30/93

Checked By: M. Marello, R.G.

WATER AND WELL DATA

Depth of Water First Encountered: ~ 13.5'

Total Depth of Well Completed: 20.0'

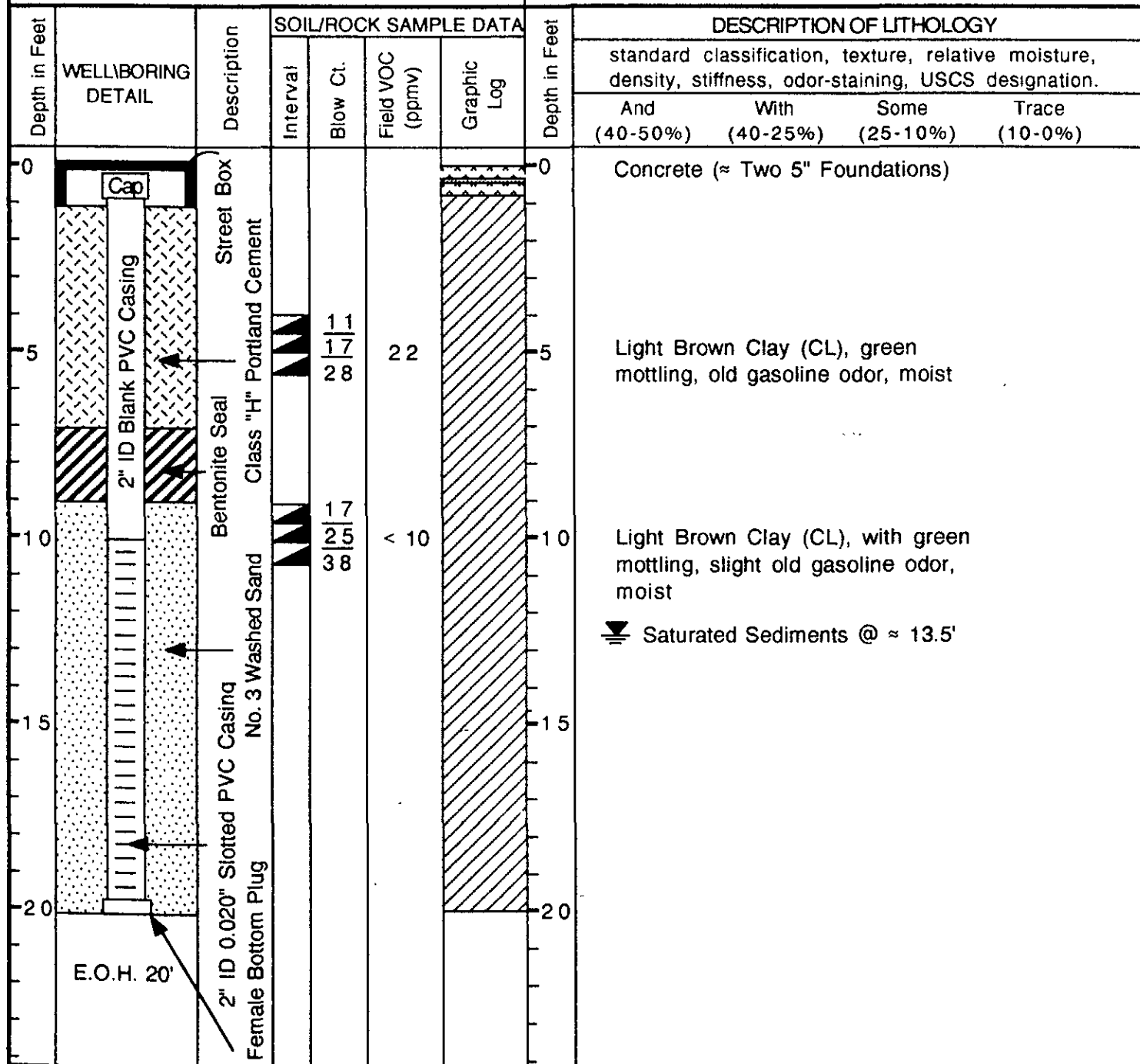
Well Screen Type and Diameter: 2" Diameter Schedule 40 PVC

Static Depth of Water in Well: 6.10' Below T.O.C.

Well Screen Slot Size: 0.020"

Total Depth of Boring: 20'

Type and Size of Soil Sampler: 2" I.D., Calif. Split-Spoon



SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS

WELL NO. MW-3

Project Name: Linford Construction

Project Location: 2850 Poplar Street, Oakland, CA

Page 1 of 1

Driller: Gregg Drilling

Type of Rig: Mobil B - 53

Type and Size of Auger: 8-3/4" O.D., H.S.

Logged By: WCL

Date Drilled: 04/30/93

Checked By: M. Marelo, R.G.

WATER AND WELL DATA

Depth of Water First Encountered: ~ 11.5'

Static Depth of Water in Well: 6.48' Below T.O.C.

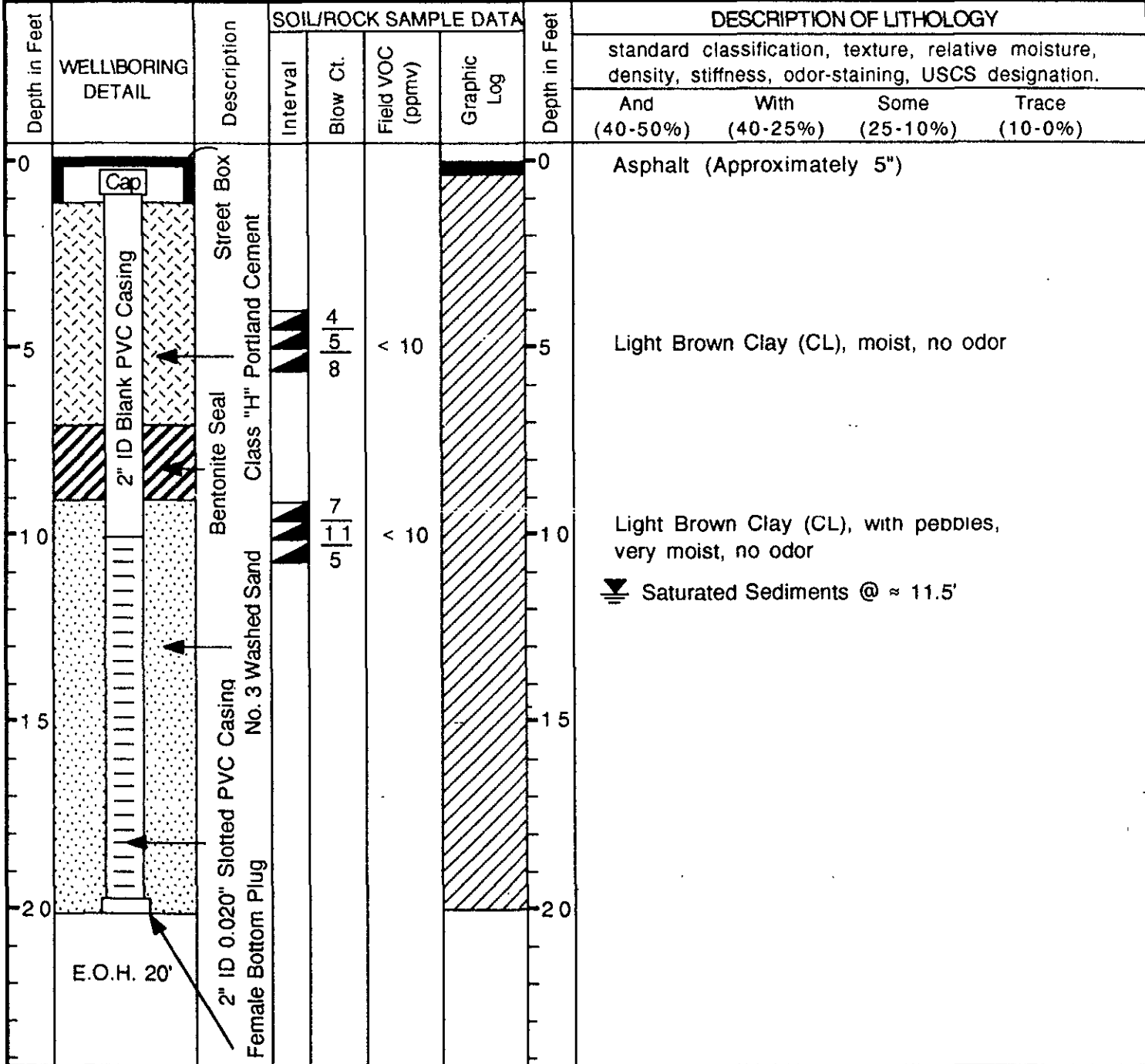
Total Depth of Boring: 20'

Total Depth of Well Completed: 20.0'

Well Screen Type and Diameter: 2" Diameter Schedule 40 PVC

Well Screen Slot Size: 0.020"

Type and Size of Soil Sampler: 2" I.D., Calif. Split-Spoon



SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS

Monitoring Well MW-4

Project Name: The Linford Company

Project Location: 2850 Poplar Street, Oakland, CA

Page 1 of 1

Driller: Gregg Drilling

Type of Rig: Simco

Type and Size of Auger: 8-inch O.D. Hollow-stem.

Logged By: Robert E. Kitay

Date Drilled: June 10, 1994

Checked By: David M. Schultz, P.E.

WATER AND WELL DATA

Depth of Water First Encountered: ~ 6.4'

Static Depth of Water In Well: 7.4'

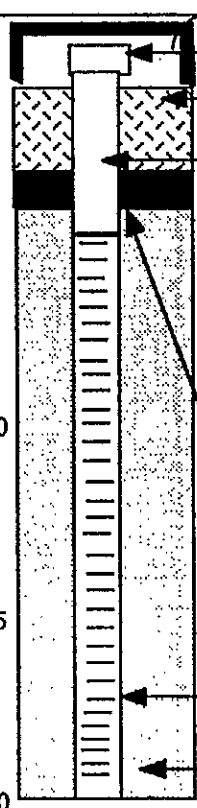
Total Depth of Boring: 20.0'

Total Depth of Well Completed: 20.0'

Well Screen Type and Diameter: 2" Diameter Schedule 40 PVC

Well Screen Slot Size: 0.020"

Type and Size of Soil Sampler: 1.5" I.D. Split-barrel

Depth in Feet	WELLBORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY
			Interval	Blow Ct.	Time	Graphic Log		standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0		Street Box Locking Well Cap					0	Concrete
5		2" ID Blank Sch 40 PVC	X		11:45		5	Silty CLAY (CH); black; medium stiff; damp; 65% clay; 35% silt; high plasticity; very low estimated K; no odor
10		Class "H" Portland Cement	X				10	Sandy CLAY (CH); olive; medium stiff; wet; 60% clay; 25% fine sand; 15% silt; high plasticity; very low estimated K; no odor
15		Bentonite Seal	X				15	CLAY (CH); light brown; stiff; moist; 95% clay; 5% silt; high plasticity; very low estimated K; no odor
20		2" ID 0.020" Slotted Sch 40 PVC	X				20	Clayey SILT (ML); yellow brown; medium stiff; wet; 90% silt; 10% clay; medium plasticity; low estimated K; no odor
		No. 3 Washed Monterey Sand						

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS

Monitoring Well MW-5

Project Name: The Linford Company

Project Location: 2850 Poplar Street, Oakland, CA

Page 1 of 1

Driller: Gregg Drilling

Type of Rig: Mobile B-61

Type and Size of Auger: 8-inch O.D. Follow-stem.

Logged By: Robert E. Kitay

Date Drilled: June 10, 1994

Checked By: David M. Schultz, P.E.

WATER AND WELL DATA

Total Depth of Well Completed: 20.0'

Depth of Water First Encountered: 13'

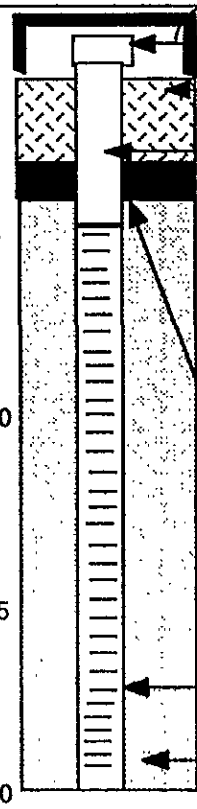
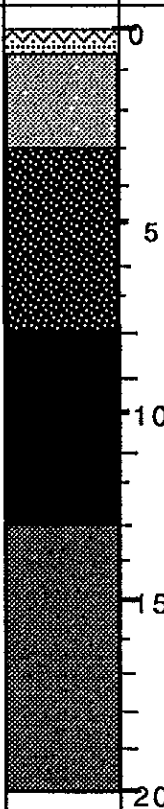
Well Screen Type and Diameter: 2" Diameter Schedule 40 PVC

Static Depth of Water in Well: 6.6'

Well Screen Slot Size: 0.020"

Total Depth of Boring: 20.0'

Type and Size of Soil Sampler: 2.0" I.D. Split-barrel

Depth in Feet	WELLBORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY
			Interval	Blow Ct.	Time	Graphic Log		
0		Street Box Locking Well Cap					0	Ashaltic concrete
5		2" ID Blank Sch 40 PVC	6 7 10 14 15 21	8:30		5	Silty SAND (SM); yellow brown; loose; damp; 75% fine sand; 25% silt; medium estimated K; no odor Sandy CLAY (CH); olive; medium stiff; damp; 50% clay; 30% very fine to fine sand; 15% silt; 5% coarse angular to subangular sand; high plasticity; very low estimated K; no odor	
10		Bentonite Seal	10 11 14			10	CLAY (CH); light brown; stiff; moist; 95% clay; 5% silt; high plasticity; very low estimated K; no odor	
15		2" ID 0.020" Slotted Sch 40 PVC	4 5 6			15	Clayey SILT (ML); yellow brown mottled olive grey; medium stiff; wet; 90% silt; 10% clay; medium plasticity; low estimated K; no odor	
20		No. 3 Washed Monterey Sand	4 5 6			20		

30TH STREET

FENCE

PARKING LOT

HOUSE

OFFICES

TRAILER

MW-2
(8.90')

MW-3
(9.36)

MW-1
(9.57')

LINFORD
MANUFACTURING
BUILDING

FORMER TANKS

SHED

Gradient of 0.027 ft./ft.
toward the northwest

FENCE

28TH STREET

POPLAR STREET

FEET

MARS.

N

Approximate Scale
1 inch = 30 feet

LEGEND



MW-3
(9.36')

Monitoring Well with groundwater
depth in feet above mean sea level



Groundwater Flow Direction

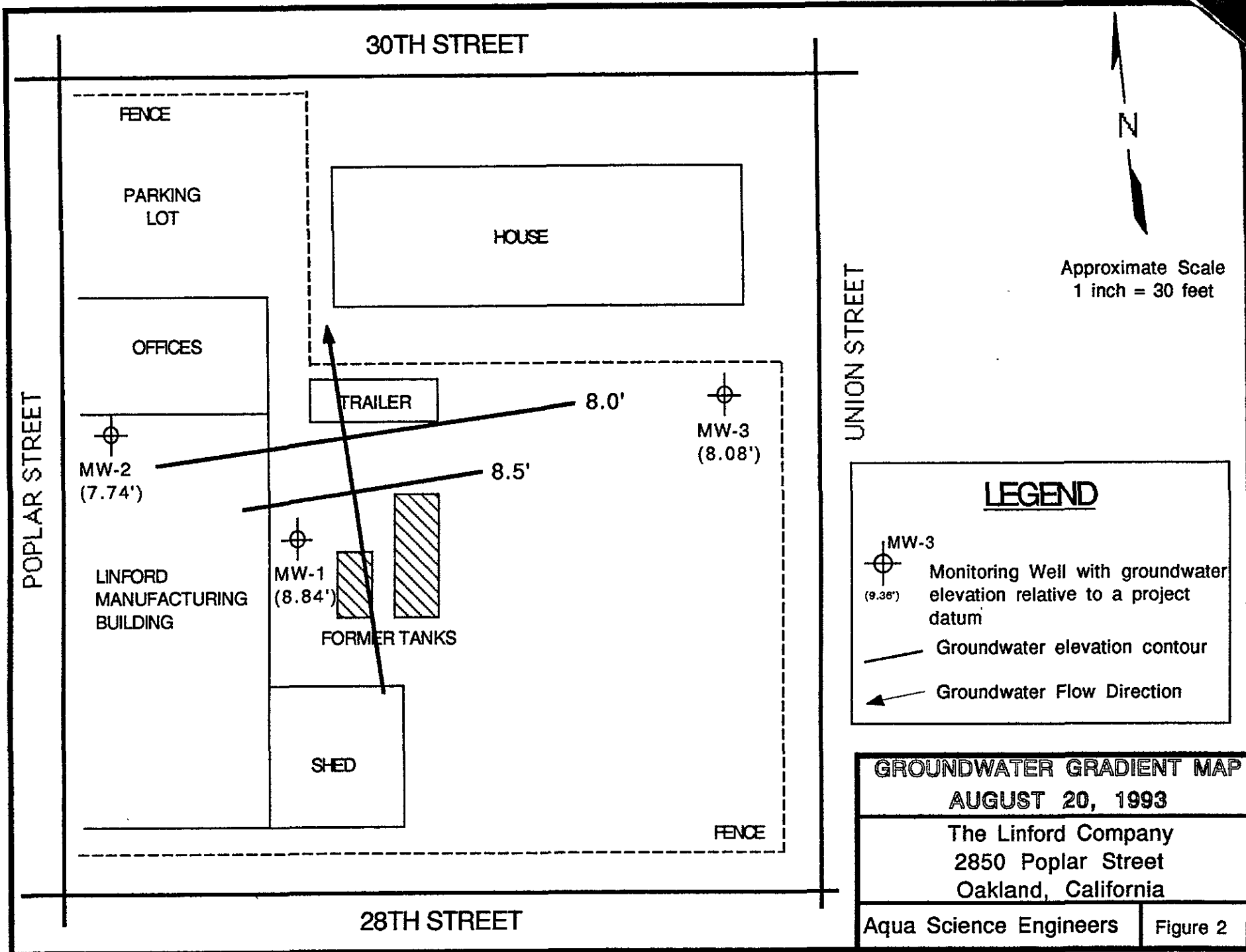
GROUNDWATER GRADIENT MAP

4/30/93

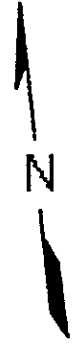
The Linford Company
2850 Poplar Street
Oakland, California

Aqua Science Engineers




Figure 3



Approximate Scale
1 inch = 30 feet



LEGEND

-  MW-3
(9.36') Monitoring Well with groundwater elevation relative to a project datum
-  Groundwater elevation contour
-  Groundwater Flow Direction

GROUNDWATER GRADIENT MAP
AUGUST 20, 1993

The Linford Company
2850 Poplar Street
Oakland, California

Aqua Science Engineers	Figure 2
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30TH STREET



Approximate Scale
1 inch = 30 feet

UNION STREET

POPLAR STREET

FENCE

PARKING LOT

HOUSE

OFFICES

TRAILER

7.50'

7.75'

MW-3
(7.84')

MW-2
(7.36')

MW-1
(7.41')

LINFORD
MANUFACTURING
BUILDING

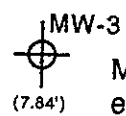
FORMER TANKS

SHED

FENCE

28TH STREET

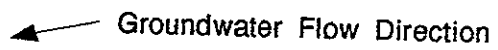
LEGEND



Monitoring Well with groundwater elevation relative to a project datum



Groundwater elevation contour



Groundwater Flow Direction

GROUNDWATER GRADIENT MAP
NOVEMBER 18, 1993

The Linford Company
2850 Poplar Street
Oakland, California

Aqua Science Engineers

Figure 4

30TH STREET



Approximate Scale
1 inch = 30 feet

UNION STREET

POPLAR STREET

FENCE

PARKING LOT

HOUSE

OFFICES

TRAILER

MW-3

7.75' (7.88')

MW-2
(7.30')

7.50'

MW-1
(7.29')

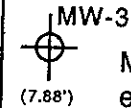
FORMER TANKS

LINFORD
MANUFACTURING
BUILDING

SHED

FENCE

LEGEND



Monitoring Well with groundwater elevation relative to a project datum



Groundwater elevation contour



Groundwater Flow Direction

GROUNDWATER GRADIENT MAP
OCTOBER 22, 1993

The Linford Company
2850 Poplar Street
Oakland, California

Aqua Science Engineers

Figure 3

28TH STREET

POPLAR STREET

NORTH

SCALE
1" = 40'

GATE

MW-4
(7.77')

MW-5
(8.56')

MANUFACTURING

MW-2
(8.00')

OFFICES

28TH STREET

MANUFACTURING

MW-1
(8.31')

DIRECTION OF GROUNDWATER
FLOW, 0.005 FEET/FOOT

FENCE

BH-S

BH-N

FORMER USTs
AND PUMP
ISLAND

BH-E

EXPLANATION

BH-N ● SOIL BORING

MW-1 ⊕ MONITORING WELL WITH
(8.31') GROUNDWATER ELEVATION
IN FEET

MW-3
(8.86')

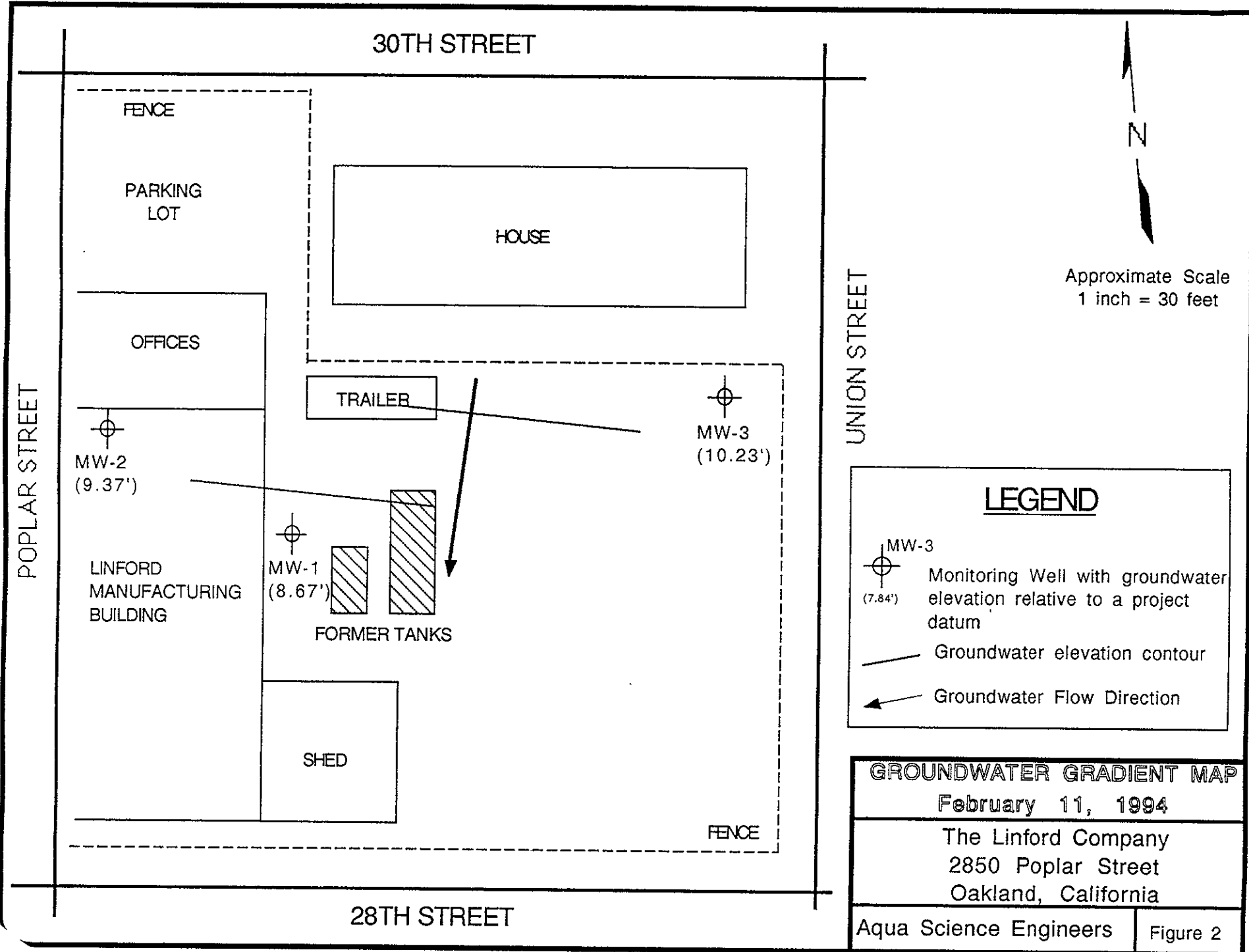
POTENTIOMETRIC SURFACE
MAP - JUNE 21, 1994

The Linford Company
2850 Poplar Street
Oakland, California

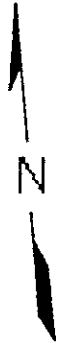
FENCE

SIDEWALK

UNION STREET



Approximate Scale
1 inch = 30 feet



LEGEND

MW-3
 (7.84') Monitoring Well with groundwater elevation relative to a project datum

Groundwater elevation contour

Groundwater Flow Direction

GROUNDWATER GRADIENT MAP
 February 11, 1994

The Linford Company
 2850 Poplar Street
 Oakland, California

Aqua Science Engineers	Figure 2
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SITE LOCATION MAP

Linford Property
 2850 Poplar Street
 Oakland, California

BASE: Oakland West 7.5 minute quadrangle topographic map, dated 1960, scale 1:24,000.

Aqua Science Engineers

Figure 1

POPLAR STREET

NORTH

SCALE
1" = 40'

28TH STREET

GATE



MW-5

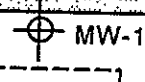
MANUFACTURING



MW-2

OFFICES

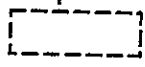
MANUFACTURING



MW-1



BH-S



BH-N

FORMER USTs
AND PUMP
ISLAND



BH-E

FENCE

EXPLANATION

BH-N ● SOIL BORING

MW-1 ⊕ MONITORING WELL



MW-3

FENCE

SIDEWALK

SITE PLAN

The Linford Company
2850 Poplar Street
Oakland, California

UNION STREET

AQUA SCIENCE ENGINEERS, INC.

Figure 2

POPLAR STREET

NORTH

SCALE
1" = 40'

GATE

MW-4
(<0.5)

MW-5
(<0.5)

MANUFACTURING

OFFICES

MW-2
(1,400)

MW-1
(500)

MANUFACTURING

FORMER USTs
AND PUMP
ISLAND

FENCE

EXPLANATION

MW-1  MONITORING WELL WITH
(500) BENZENE CONCENTRATION
IN PPB

 BENZENE ISOCONCENTRATION
CONTOUR (PPB)

MW-3
(<0.5)

FENCE

SIDEWALK

**BENZENE ISOCONCENTRATION
CONTOUR MAP**

The Linford Company
2850 Poplar Street
Oakland, California

UNION STREET

AQUA SCIENCE ENGINEERS, INC.

Figure 5

28TH STREET

