

Well Construction Details and Logs

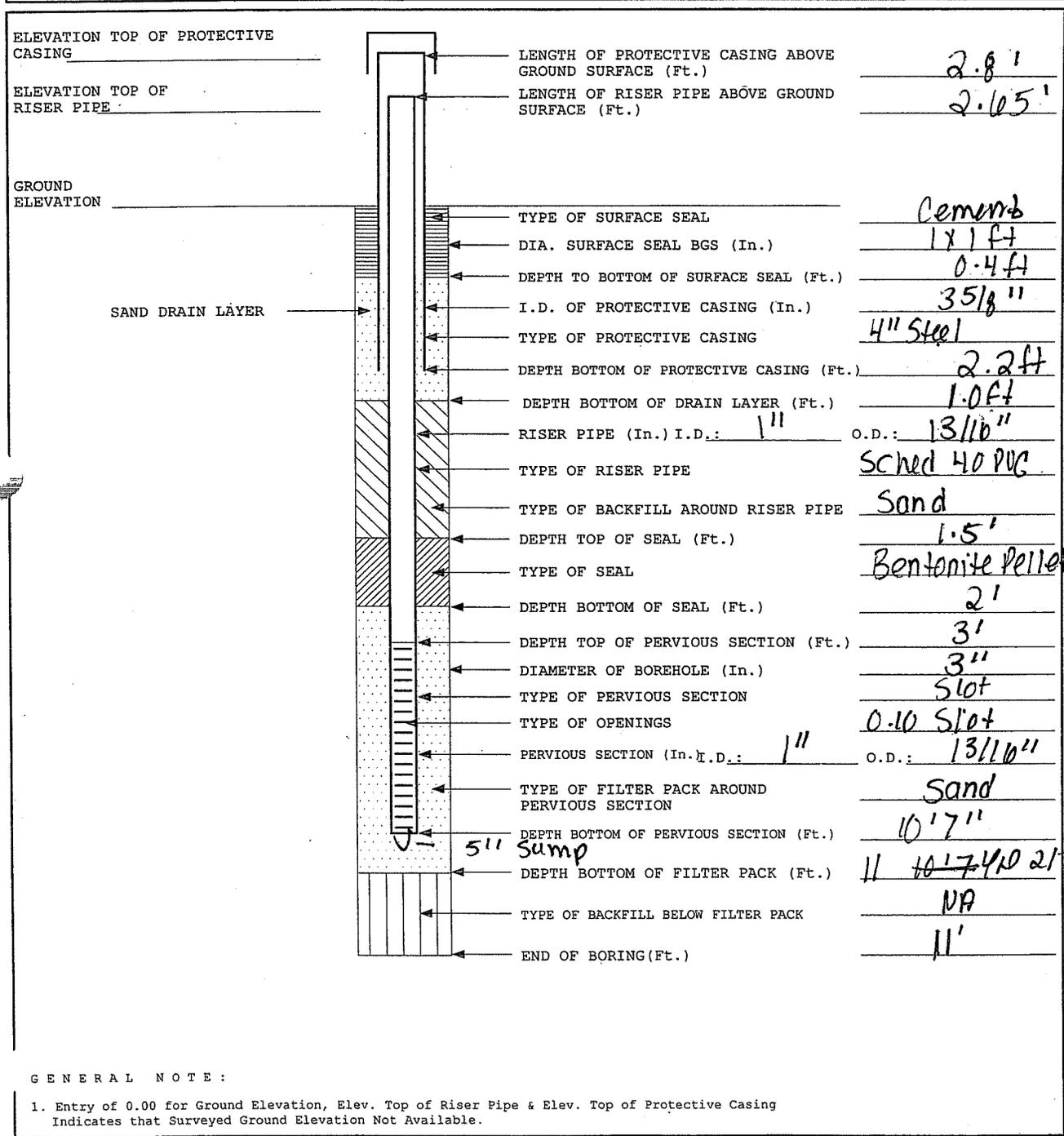
APPENDIX 3B-3
SUMMARY OF TITNUS WELL CONSTRUCTION DETAILS

Well ID	NORTHING (MA State Plane Coordinate System NAD 83)	EASTING (MA State Plane Coordinate System NAD 83)	GROUND ELEVATION (ft-NGVD 88)	TOP OF PROTECTIV E CASING ELEVATION (ft-NGVD 88)	TOP OF PVC ELEVATI ON (ft- NGVD 88)	PROTECTIV E CASING STICK UP (ft.)	PVC STICK UP (ft.)	BOREHOLE DIAMETER (IN.)	WELL CASING AND SCREEN MATERI AL	WELL INSIDE DIAMETE R (IN.)	WELL SCREEN SLOT No.	DEPTH TOP OF SCREEN (ft. BGS)	DEPTH BOTTOM OF SCREEN (ft. BGS)	DEPTH MIDPOIN T OF SCREEN (ft. BGS)	ELEVATIO N TOP OF SCREEN (ft-NGVD 88)	ELEVATIO N BOTTOM OF SCREEN (ft-NGVD 88)	ELEVATIO N MIDPOINT OF SCREEN (ft- NGVD 88)	LENGTH OF SCREEN (ft.)	FILTER PACK	DEPTH TO BOTTOM OF BORING (ft.)	BOTTOM OF BORING ELEVATION (ft-NGVD 88)	DRILLING METHOD	CONSUL TANT
A-1	3016551.08	751411.49	75.06	77.89	77.72	2.80	2.65	3	Schedule	1	10	3	10.58	6.79	72.06	64.48	68.27	7.58	Sand	11	64.06	DPT	TITNUS
A-2	3016157.33	751120.36	75.96	75.96	75.68	NA	-0.13	4	Schedule	1	10	4	14	9	71.96	61.96	66.96	10	Sand	14.4	61.56	DPT	TITNUS
A-3	3015301.46	751087.36	74.34	77.48	77.27	3.15	3.05	3	Schedule	1	10	3.5	6.5	5	70.84	67.84	69.34	3	Sand	6.5	67.84	DPT	TITNUS
A-5	3015798.01	751214.01	86.78	86.78	86.54	NA	-0.25	4	Schedule	1	10	11.9	24.9	18.4	74.88	61.88	68.38	13	Sand	25	61.78	DPT	TITNUS
A-6	3016197.14	751575.41	76.14	76.14	75.74	NA	-0.25	3	Schedule	1	10	4	13.58	8.79	72.14	62.56	67.35	9.58	Sand	14	62.14	DPT	TITNUS
A-7	3016494.45	751625.22	76.63	76.63	76.38	NA	-0.13	3	Schedule	1	10	3	8.58	5.79	73.63	68.05	70.84	5.58	Sand	9	67.63	DPT	TITNUS
A-8	3016586.52	751888.03	79.13	79.13	78.90	NA	-0.12	4	Schedule	1	10	5	15	10	74.13	64.13	69.13	10	Sand	15.4	63.73	DPT	TITNUS
A-9	3016542.03	752051.95	79.82	79.82	79.60	NA	-0.10	4	Schedule	1	10	4.7	10.7	7.7	75.12	69.12	72.12	6	Sand	11	68.82	DPT	TITNUS
C-1	3011489.86	752782.49	64.67	64.67	64.41	NA	-0.20	4	Schedule	1	10	11	21	16	53.67	43.67	48.67	10	Sand	21	43.67	DPT	TITNUS
C-2	3011472.33	753106.34	57.00	59.99	59.69	3.00	2.70	4	Schedule	1	10	6	16	11	51	41	46	10	Sand	16.4	40.60	DPT	TITNUS
C-3	3011637.18	753025.61	57.50	60.86	60.66	3.60	3.41	4	Schedule	1	10	6	16	11	51.5	41.5	46.5	10	Sand	16.4	41.10	DPT	TITNUS
C-4	3011831.98	752935.26	57.37	60.07	59.81	2.73	2.48	4	Schedule	1	10	6	13	9.5	51.37	44.37	47.87	7	Sand	13.2	44.17	DPT	TITNUS
C-5	3012020.58	752838.18	57.99	61.29	60.93	3.40	3.01	4	Schedule	1	10	6	16	11	51.99	41.99	46.99	10	Sand	16.3	41.69	DPT	TITNUS
C-6 (2nd at	3011942.59	752528.86	67.72	67.87	67.58	NA	-0.20	4	Schedule	1	10	7	17	12	60.72	50.72	55.72	10	Sand	17.2	50.52	DPT	TITNUS
C-6 (1st at	Not Surveyed	Not Surveyed	Not Surveyed	Not Surveyed	Not Surveyed	NA	-0.05	3	Schedule	1	10	6	15.58	10.79	Not Surveyed	Not Surveyed	Not Surveyed	9.58	Sand	16	Not Surveyed	DPT	TITNUS
CLA-2	3014718.33	753624.95	65.16	68.08	67.70	2.95	2.65	4	Schedule	1	10	5	13	9	60.16	52.16	56.16	8	Sand	13	52.16	DPT	TITNUS
CLA-3	3015498.83	754078.52	66.54	66.94	66.66	0.44	0.33	4	Schedule	1	10	1	11	6	65.54	55.54	60.54	10	Sand	11	55.54	DPT	TITNUS
CLA-4	3014591.49	754016.89	64.75	65.40	65.06	0.50	0.40	4	Schedule	1	10	1	6.4	3.7	63.75	58.35	61.05	5.4	Sand	7	57.75	DPT	TITNUS
CLA-5	3015350.02	754536.94	71.34	74.72	74.42	3.61	3.30	4	Schedule	1	10	3.5	13.5	8.5	67.84	57.84	62.84	10	Sand	14	57.34	DPT	TITNUS
CLA-6	3014469.62	754031.66	63.74	64.52	64.20	0.50	0.30	4	Schedule	1	10	1	6.3	3.65	62.74	57.44	60.09	5.3	Sand	7	56.74	DPT	TITNUS
CLA-7	3014034.72	753702.66	67.04	67.13	66.90	NA	0.12	3	Schedule	1	10	4.8	7.8	6.3	62.24	59.24	60.74	3	Sand	7.85	59.19	DPT	TITNUS
CLA-8	3014194.85	754087.67	74.09	74.09	73.86	NA	0.50	2	Schedule	1	10	9	14	11.5	65.09	60.09	62.59	5	Sand	14	60.09	DPT	TITNUS
CLA-9	3013807.95	753818.96	69.15	72.37	72.16	3.15	2.93	4	Schedule	1	10	10	20	15	59.15	49.15	54.15	10	Sand	20	49.15	DPT	TITNUS
E-1	3010457.28	753834.21	53.48	56.58	56.26	3.10	2.78	4	Schedule	1	10	2	12	7	51.48	41.48	46.48	10	Sand	12.4	41.08	DPT	TITNUS
E-1M	3010443.51	753841.27	54.09	56.99	56.56	2.86	2.43	4	Schedule	1	10	27	37	32	Not Surveyed	Not Surveyed	Not Surveyed	10	Sand	37.4	Not Surveyed	DPT	TITNUS
E-2	3010225.67	753958.00	53.31	56.21	55.71	2.86	2.38	4	Schedule	1	10	3	13	8	50.31	40.31	45.31	10	Sand	13.4	39.91	DPT	TITNUS
E-3	3010060.92	754007.61	54.23	54.23	53.91	NA	-0.23	3	Schedule	1	10	3	12.58	7.79	51.23	41.65	46.44	9.58	Sand	13	41.23	DPT	TITNUS
E-4	3009677.16	754113.03	56.02	56.02	55.77	NA	-0.27	4	Schedule	1	10	5	15	10	51.02	41.02	46.02	10	Sand	15.4	40.62	DPT	TITNUS
E-5	3009476.70	754286.71	53.60	54.40	54.26	NA	-0.15	3	Schedule	1	10	3	12.58	7.79	50.6	41.02	45.81	9.58	Sand	13	40.60	DPT	TITNUS
E-6	3010496.71	754939.53	55.94	55.94	55.56	NA	-0.42	3	Schedule	1	10	3	12.58	7.79	52.94	43.36	48.15	9.58	Sand	13	42.94	DPT	TITNUS
E-7	3009883.55	755183.03	57.31	57.31	57.10	NA	-0.10	3	Schedule	1	10	5	15	10	52.31	42.31	47.31	10	Sand	15.2	42.11	DPT	TITNUS
F-1	3008605.01	754152.53	65.34	67.60	68.14	1.78	1.18	4	Schedule	1	10	16	26	21	49.34	39.34	44.34	10	Sand	26.4	38.94	DPT	TITNUS
F-1(deep w	3008601.60	754144.07	65.30	67.90	67.69	2.60	2.42	4.5	Pre-Pack	2	10	109.58	119.58	114.58	-44.28	-54.28	-49.28	10	No. 1 Silica	127	61.70	DPT	TITNUS
F-2	3008469.86	754494.18	54.20	57.80	57.44	3.53	3.17	4	Schedule	1	10	5	15	10	49.2	39.2	44.2	10	Sand	15.4	38.80	DPT	TITNUS
F-3	3008682.46	754914.27	61.57	61.57	61.18	NA	-0.25	3	Schedule	1	10	10	19.58	14.79	51.57	41.99	46.78	10	Sand	20.3	41.27	DPT	TITNUS
G-1	3009025.46	753650.42	58.51	61.61	61.44	3.19	3.01	4	Schedule	1	10	7	17	12	51.51	41.51	46.51	10	Sand	17	41.51	DPT	TITNUS
G-2	3009307.21	753893.52	55.78	55.78	55.52	NA	-0.25	4	Schedule	1	10	5	14.58	9.79	50.78	41.2	45.99	9.58	Sand	15	40.78	DPT	TITNUS
G-3	3008799.60	754266.65	54.38	54.38	54.02	NA	-0.10	3	Schedule	1	10	7	16.58	11.79	47.38	37.8	42.59	9.58	Sand	17	37.38	DPT	TITNUS
P-1	3014818.85	752540.25	80.19	80.19	80.03	NA	-0.20	4	Schedule	1	10	8.5	18.5	13.5	71.69	61.69	66.69	10	Sand	19	61.19	DPT	TITNUS
P-2	3014855.45	752754.04	81.35	81.35	80.92	NA	-0.25	4	Schedule	1	10	8	14.58	11.29	73.35	66.77	70.06	6.58	Sand	15	66.35	DPT	TITNUS
P-3	3014890.76	753069.66	80.73	83.35	82.99	2.70	2.33	4	Schedule	1	10	6	16	11	74.73	64.73	69.73	10	Sand	16.4	64.33	DPT	TITNUS
MW-1	3016032.79	754370.43	79.68	82.53	81.95	Not Recorded	2.29	Not Recorded	Not Recorded	2	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	10	69.68	Unknown	Unknown
MW-2	3013919.74	753108.01	76.37	79.47	78.88	3.00	3.00	4	Schedule	1	10	14.5	24.5	19.5	61.87	51.87	56.87	10	Sand	25.4	50.97	DPT	TITNUS
MW-3	3013297.78	752469.84	73.14	73.14	72.89	NA	-0.50	3	Schedule	1	10	10	19.58	14.79	63.14	53.56	58.35	9.58	Sand	20	53.14	DPT	TITNUS
MW-4	3012920.43	752959.39	64.29	66.79	66.36	2.54	2.10	4	Schedule	1	10	8	18	13	56.29	46.29	51.29	10	Sand	18.4	45.89	DPT	TITNUS
MW-4I	3012931.07	752971.61	64.96	68.46	68.15	3.00	3.50	3	Schedule	1	10	15	24.58	19.79	49.96	40.38	45.17	9.58	Sand	25	Not Surveyed	DPT	TITNUS
MW-5	3012399.92	753159.80	67.10	70.24	70.02	3.40	3.20	3	Schedule	1	10	15	24.58	19.79	52.1	42.52	47.31	9.58	Sand	25	42.10	DPT	TITNUS
MW-6	3012196.18	753509.33	60.01	62.91	62.53	3.00	2.80	4	Schedule	1	10	4.5	14.5	9.5	55.51	45.51	50.51	10	Sand	15	45.01	DPT	TITNUS
MW-7	3011965.75	754134.84	70.28	73.28	73.10	3.30	3.15	3	Schedule	1	10	15	24.58	19.79	55.28	45.7	50.49	9.58	Sand	25	45.28	DPT	TITNUS
MW-8	3011507.53	754923.82	59.09	62.49	62.06	3.40	3.06	3	Schedule	1	10	15	24.58	19.79	44.09	34.51	39.3	9.58	Sand	25	34.09	DPT	TITNUS
MW-9	3008998.51	755642.18	55.78	55.78	55.52	3.50	3.26	3	Schedule	1	10	15	24.58	19.79	40.78	31.2	35.99	9.58	Sand	25	30.78	DPT	TITNUS

OVERBURDEN MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS, INC.

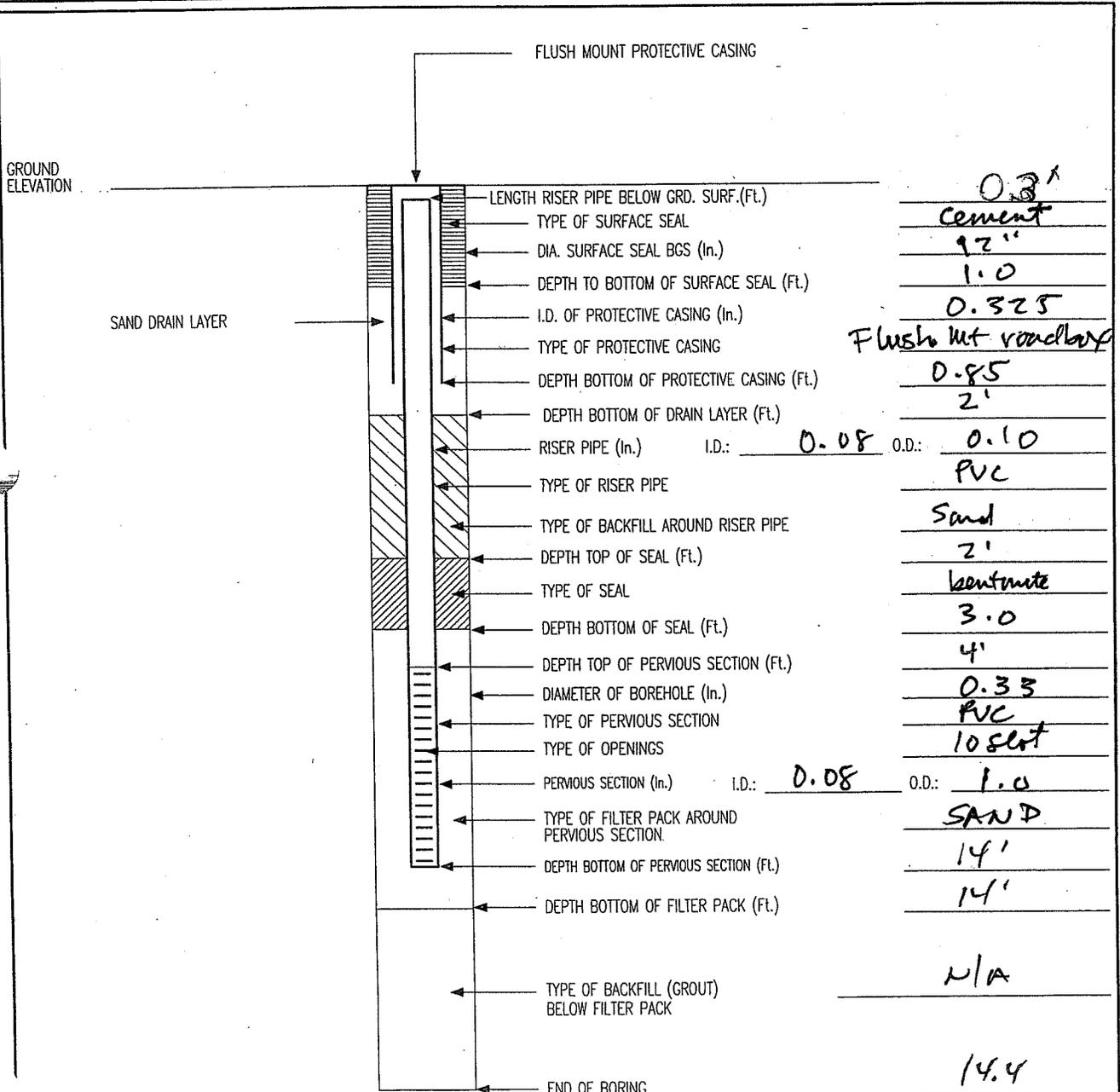
PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>A-1</u>
CLIENT: <u>US-EPA</u>	BORING NO: <u>A-1</u>
CONTRACTOR: <u>American Drilling Johnson Company, INC</u>	DRIILLER: <u>R-Dean</u>
LOGGED BY: <u>J. Danieli</u>	DATE: <u>2/7/02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>OFF OF Presidential Way in front of Pond</u>	
PAGE: 1 OF 1	



FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>A-2</u> X
CLIENT: <u>US EPA</u>	BORING NO: <u>A-2</u>
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>Warren</u>
LOGGED BY: <u>R O'Neil</u>	DATE: <u>1-16-02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: _____	
PAGE: 1 OF 1	



GENERAL NOTE:

1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

OVERBURDEN MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS, INC.

PROJECT NAME: Industri-Plex PROJECT NO: N4123-0324
 PROJECT LOCATION: Woburn, MA. WELL NO: A-3
 CLIENT: US-EPA BORING NO: _____
 CONTRACTOR: Johnson Company, INC DRILLER: _____ BORING LOCATION: _____
 LOGGED BY: Kevin O'Neill DATE: 1-15-02
 CHECKED BY: _____ DATE: _____

PAGE: 1 OF 1

ELEVATION TOP OF PROTECTIVE CASING	LENGTH OF PROTECTIVE CASING ABOVE GROUND SURFACE (Ft.)	3.15'
ELEVATION TOP OF RISER PIPE	LENGTH OF RISER PIPE ABOVE GROUND SURFACE (Ft.)	3.05'
GROUND ELEVATION	TYPE OF SURFACE SEAL	Cement
	DIA. SURFACE SEAL BGS (In.)	
	DEPTH TO BOTTOM OF SURFACE SEAL (Ft.)	1.0
	I.D. OF PROTECTIVE CASING (In.)	0.3
	TYPE OF PROTECTIVE CASING	steel
	DEPTH BOTTOM OF PROTECTIVE CASING (Ft.)	
	DEPTH BOTTOM OF DRAIN LAYER (Ft.)	N/A*
	RISER PIPE (In.) I.D.:	0.08 O.D.: 0.1
	TYPE OF RISER PIPE	PVC
	TYPE OF BACKFILL AROUND RISER PIPE	SAND
	DEPTH TOP OF SEAL (Ft.)	1.0
	TYPE OF SEAL	ben-tone
	DEPTH BOTTOM OF SEAL (Ft.)	2.5
	DEPTH TOP OF PERVIOUS SECTION (Ft.)	3.5
	DIAMETER OF BOREHOLE (In.)	0.33 0.25 10
	TYPE OF PERVIOUS SECTION	PVC 1-15-02
	TYPE OF OPENINGS	ID slot
	PERVIOUS SECTION (In.) I.D.:	0.08 O.D.: 0.1
	TYPE OF FILTER PACK AROUND PERVIOUS SECTION	SAND
	DEPTH BOTTOM OF PERVIOUS SECTION (Ft.)	6.5
	DEPTH BOTTOM OF FILTER PACK (Ft.)	6.5
	TYPE OF BACKFILL BELOW FILTER PACK	
	END OF BORING (Ft.)	

* note riser ties etc in area and determined that wire important to have secure seal

Removed sediment trap

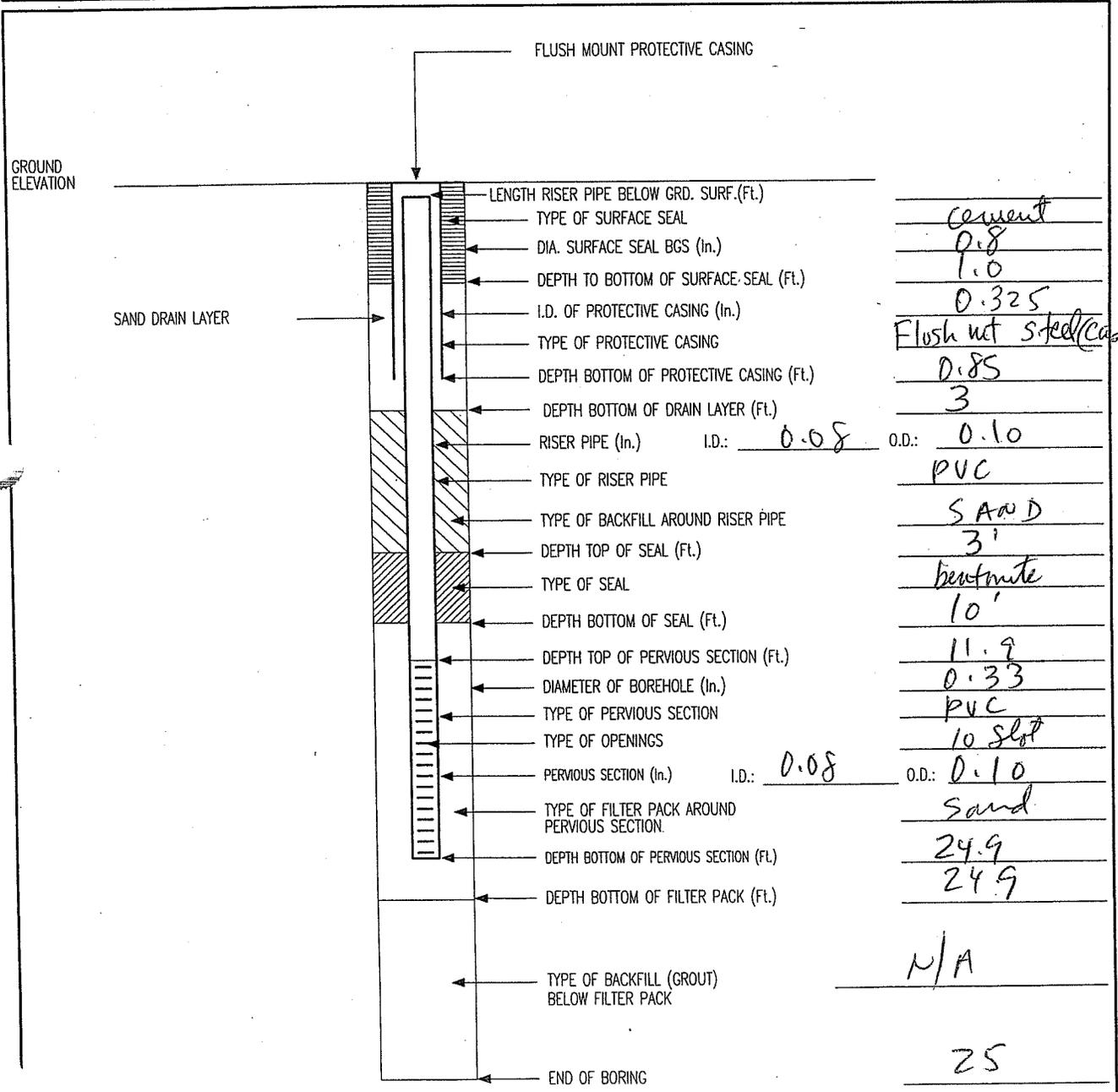
GENERAL NOTE:

- Entry of 0.00 for Ground Elevation, Elev. Top of Riser Pipe & Elev. Top of Protective Casing Indicates that Surveyed Ground Elevation Not Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>A-5</u>
CLIENT: <u>US EPA</u>	BORING NO: _____
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>Warren</u>
LOGGED BY: <u>K O'Neill</u>	DATE: <u>2-26-02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>Edge of driveway in asphalt</u>	
PAGE: <u>1</u> OF <u>1</u>	



LENGTH RISER PIPE BELOW GRD. SURF.(Ft.)	
TYPE OF SURFACE SEAL	<u>Cement</u>
DIA. SURFACE SEAL BGS (in.)	<u>0.8</u>
DEPTH TO BOTTOM OF SURFACE SEAL (Ft.)	<u>1.0</u>
I.D. OF PROTECTIVE CASING (in.)	<u>0.325</u>
TYPE OF PROTECTIVE CASING	<u>Flush mt steel (cast)</u>
DEPTH BOTTOM OF PROTECTIVE CASING (Ft.)	<u>0.85</u>
DEPTH BOTTOM OF DRAIN LAYER (Ft.)	<u>3</u>
RISER PIPE (in.) I.D.:	<u>0.08</u> O.D.: <u>0.10</u>
TYPE OF RISER PIPE	<u>PVC</u>
TYPE OF BACKFILL AROUND RISER PIPE	<u>SAND</u>
DEPTH TOP OF SEAL (Ft.)	<u>3'</u>
TYPE OF SEAL	<u>bestmate</u>
DEPTH BOTTOM OF SEAL (Ft.)	<u>10'</u>
DEPTH TOP OF PERVIOUS SECTION (Ft.)	<u>11.9</u>
DIAMETER OF BOREHOLE (in.)	<u>0.33</u>
TYPE OF PERVIOUS SECTION	<u>PVC</u>
TYPE OF OPENINGS	<u>10 slot</u>
PERVIOUS SECTION (in.) I.D.:	<u>0.08</u> O.D.: <u>0.10</u>
TYPE OF FILTER PACK AROUND PERVIOUS SECTION	<u>Sand</u>
DEPTH BOTTOM OF PERVIOUS SECTION (Ft.)	<u>24.9</u>
DEPTH BOTTOM OF FILTER PACK (Ft.)	<u>24.9</u>
TYPE OF BACKFILL (GROUT) BELOW FILTER PACK	<u>N/A</u>
END OF BORING	<u>25</u>

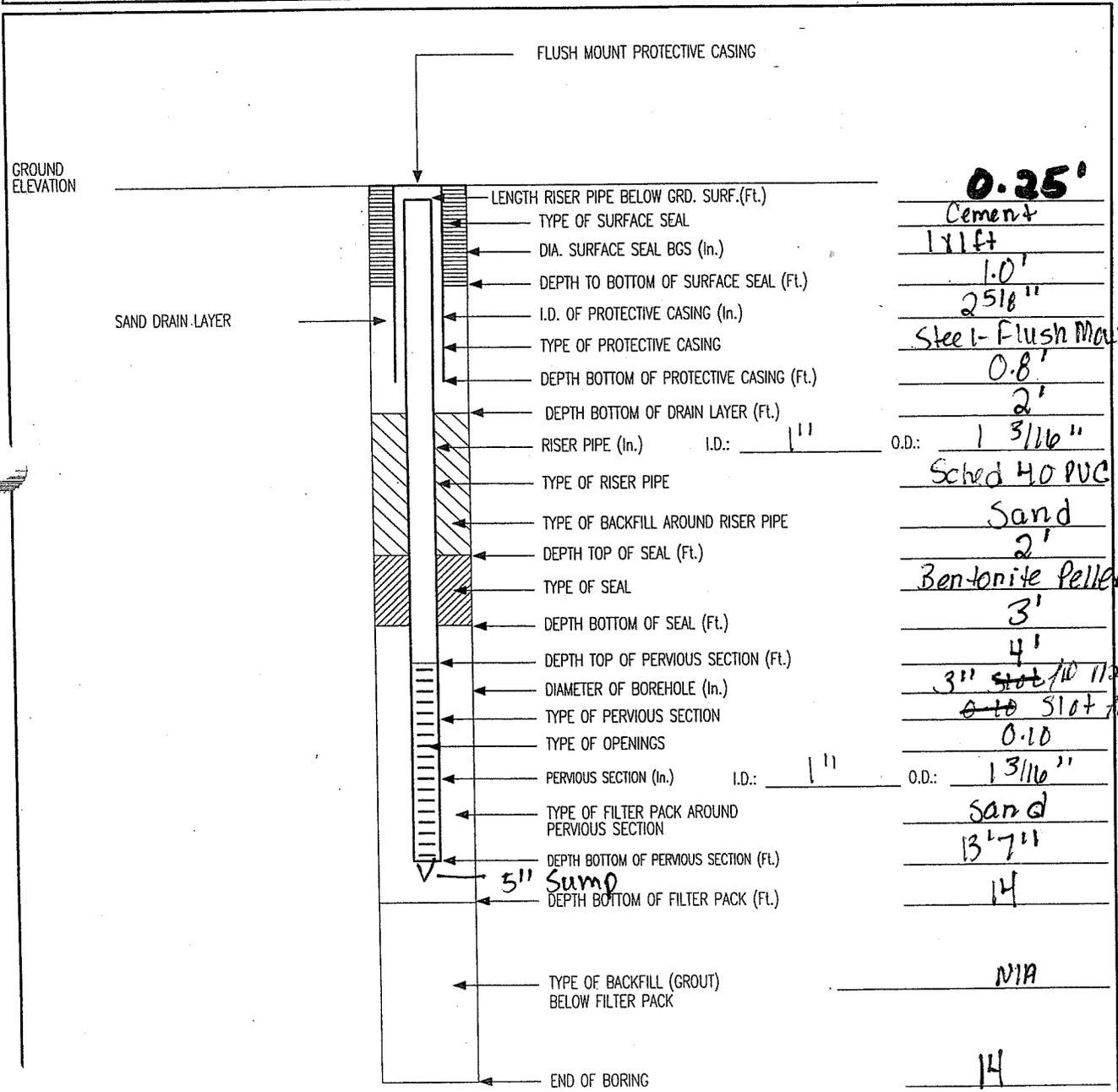
GENERAL NOTE:

1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>A-6</u>
CLIENT: <u>US EPA</u>	BORING NO: <u>A-6</u>
CONTRACTOR: <u>Johnson American Drilling Company, INC</u>	BORING LOCATION:
LOGGED BY: <u>J. Danelli</u>	DRILLER: <u>R. Dean</u>
CHECKED BY:	DATE: <u>1/21/02</u>
	PAGE: 1 OF 1



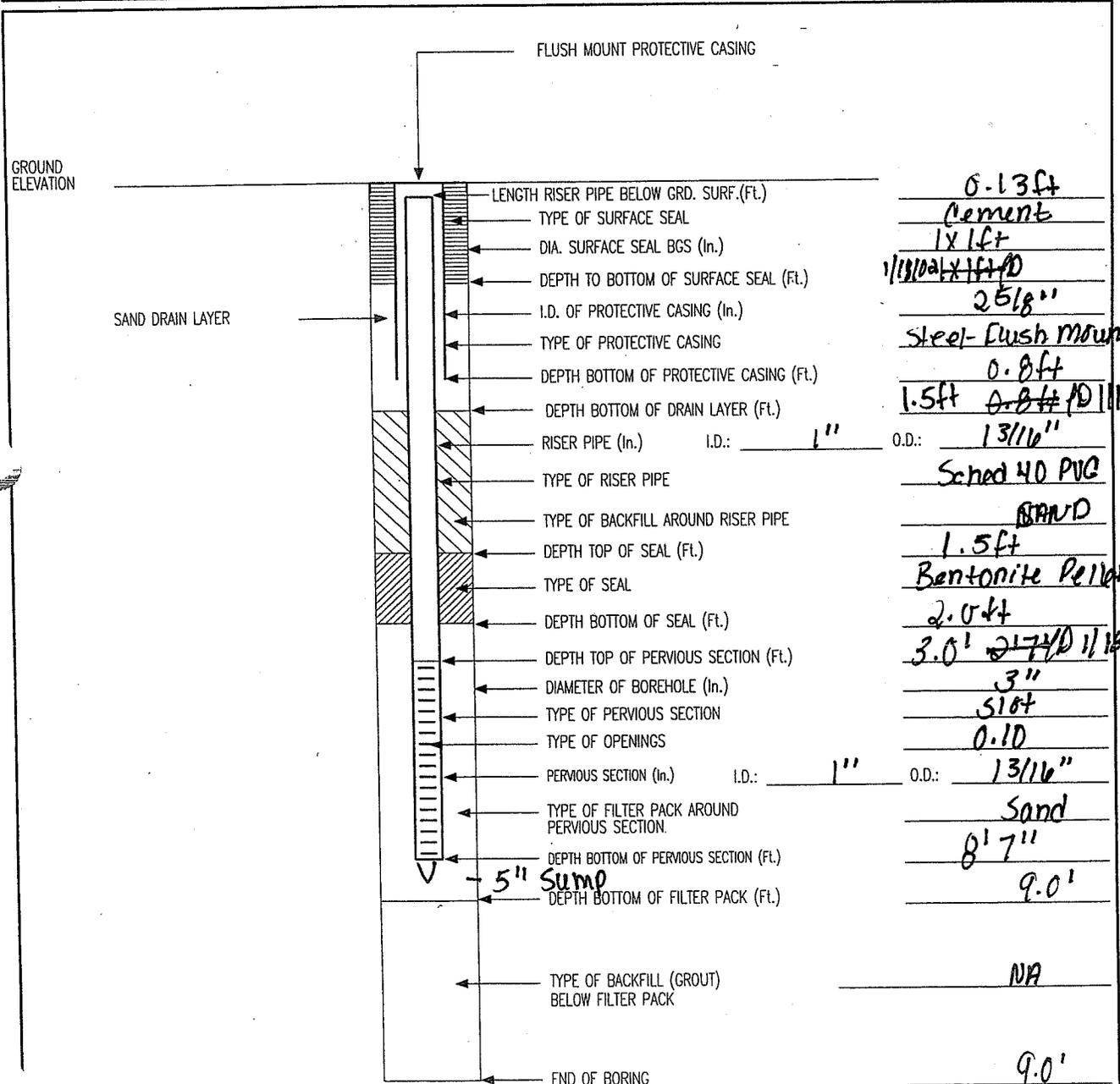
GENERAL NOTE:

1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>A-7</u>
CLIENT: <u>US EPA</u>	BORING NO: _____
CONTRACTOR: <u>American Drilling Johnson Company, INC</u>	DRILLER: <u>L. Dean</u>
LOGGED BY: <u>J. Daniele</u>	DATE: <u>1/18/03</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>Behind - Biding - Condos - Presidential OFF OF Presidential Way</u>	
PAGE: 1 OF 1	



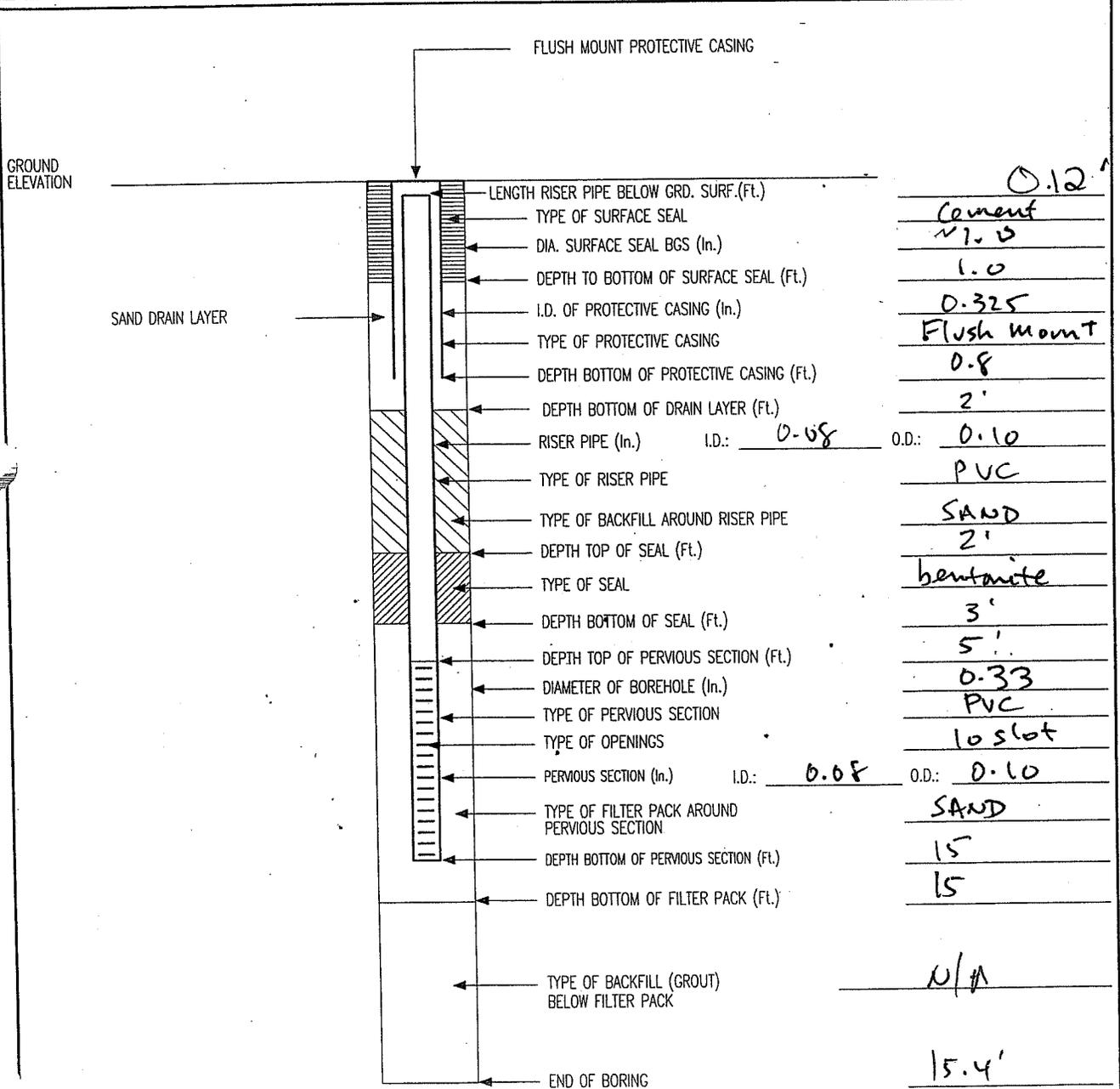
LENGTH RISER PIPE BELOW GRD. SURF.(Ft.)	0.13ft
TYPE OF SURFACE SEAL	Cement
DIA. SURFACE SEAL BGS (In.)	1x1ft
DEPTH TO BOTTOM OF SURFACE SEAL (Ft.)	1/18/03 1ft
I.D. OF PROTECTIVE CASING (In.)	2 5/8"
TYPE OF PROTECTIVE CASING	Steel - Flush mount
DEPTH BOTTOM OF PROTECTIVE CASING (Ft.)	0.8ft
DEPTH BOTTOM OF DRAIN LAYER (Ft.)	1.5ft 0.8ft PD 1/18/03
RISER PIPE (In.) I.D.:	1" O.D.: 1 3/16"
TYPE OF RISER PIPE	Sched 40 PVC
TYPE OF BACKFILL AROUND RISER PIPE	BRAND
DEPTH TOP OF SEAL (Ft.)	1.5ft
TYPE OF SEAL	Bentonite Pellets
DEPTH BOTTOM OF SEAL (Ft.)	2.0ft
DEPTH TOP OF PERVIOUS SECTION (Ft.)	3.0' 2.7ft PD 1/18/03
DIAMETER OF BOREHOLE (In.)	3"
TYPE OF PERVIOUS SECTION	Slot
TYPE OF OPENINGS	0.10
PERVIOUS SECTION (In.) I.D.:	1" O.D.: 1 3/16"
TYPE OF FILTER PACK AROUND PERVIOUS SECTION	Sand
DEPTH BOTTOM OF PERVIOUS SECTION (Ft.)	8' 7"
DEPTH BOTTOM OF FILTER PACK (Ft.)	9.0'
TYPE OF BACKFILL (GROUT) BELOW FILTER PACK	NA
END OF BORING	9.0'

GENERAL NOTE:
 1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>A-B</u>
CLIENT: <u>US EPA</u>	BORING NO: _____
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>Chris</u>
LOGGED BY: <u>K. O'Neill</u>	DATE: <u>1-24-02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: _____	
PAGE: 1 OF 1	



GENERAL NOTE:

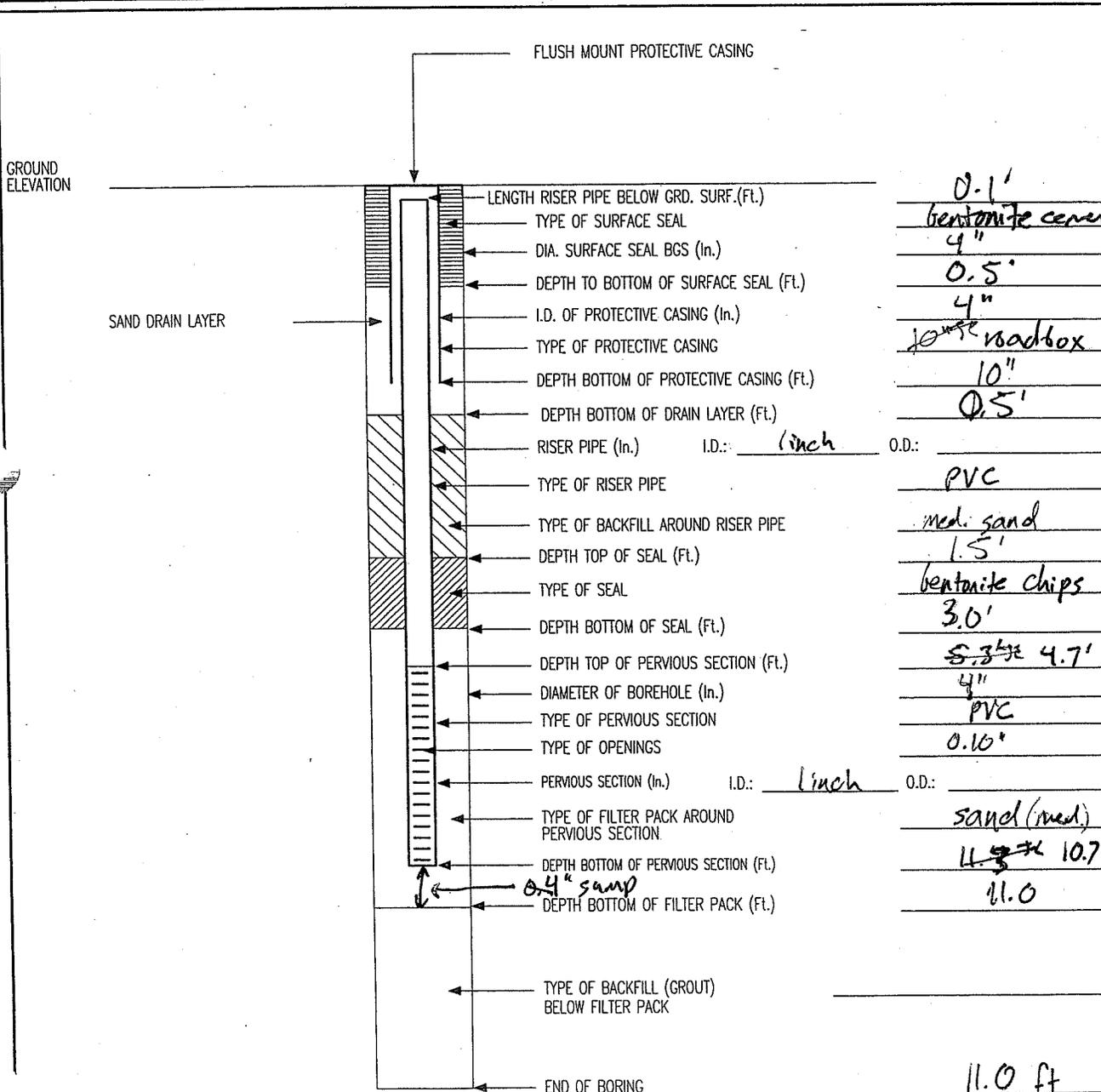
1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

SF-B3-M042

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>A.9</u>
CLIENT: <u>US EPA</u>	BORING NO: _____
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: _____
LOGGED BY: <u>J. Lambert</u>	DATE: <u>1/23/02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: _____	
PAGE: 1 OF 1	



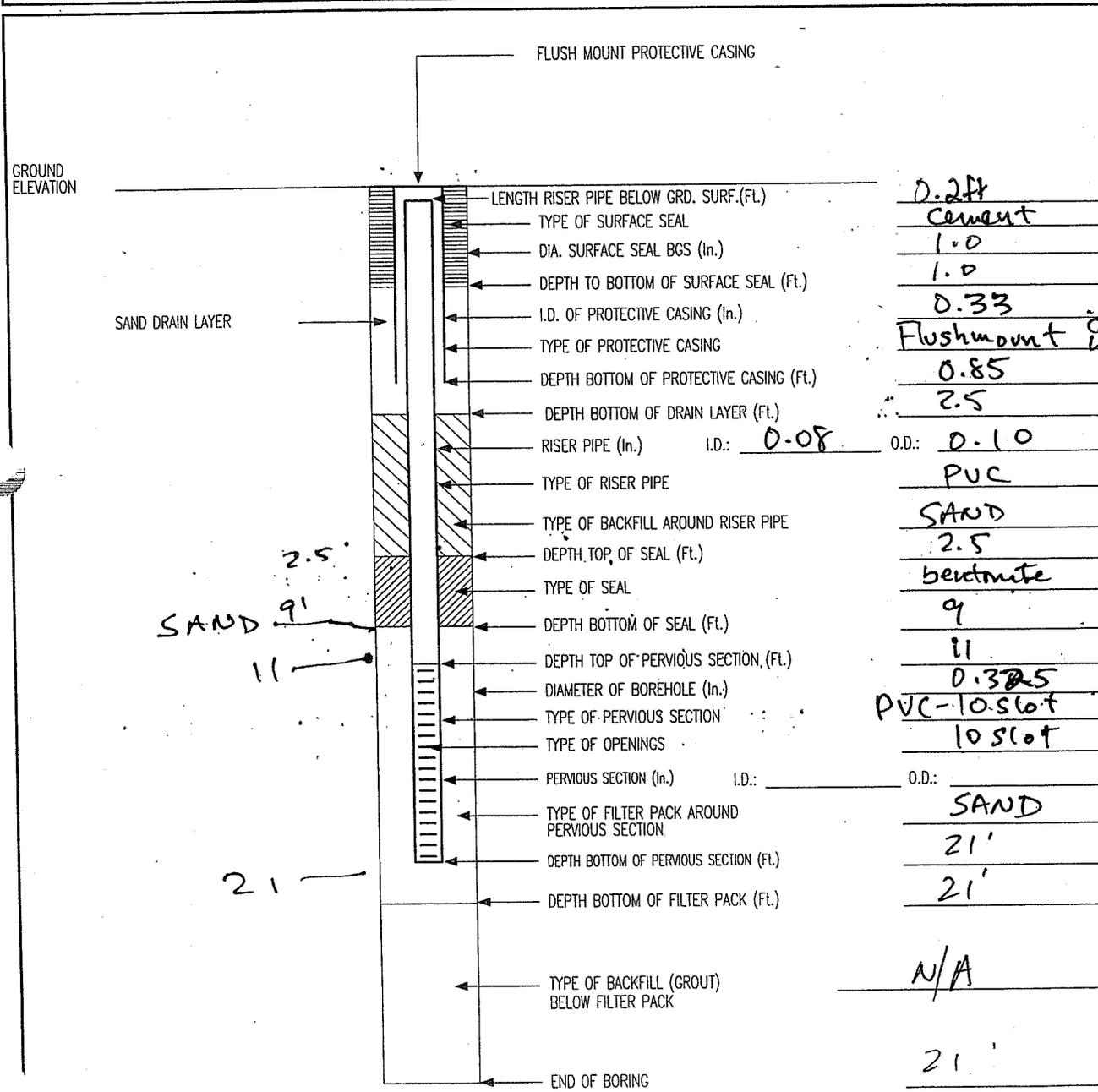
GENERAL NOTE:

1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>C-1</u>
CLIENT: <u>US EPA</u>	BORING NO: _____
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>Chris</u>
LOGGED BY: <u>K. O'Neill</u>	DATE: _____
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>parking lot</u>	
PAGE: 1 OF 1	



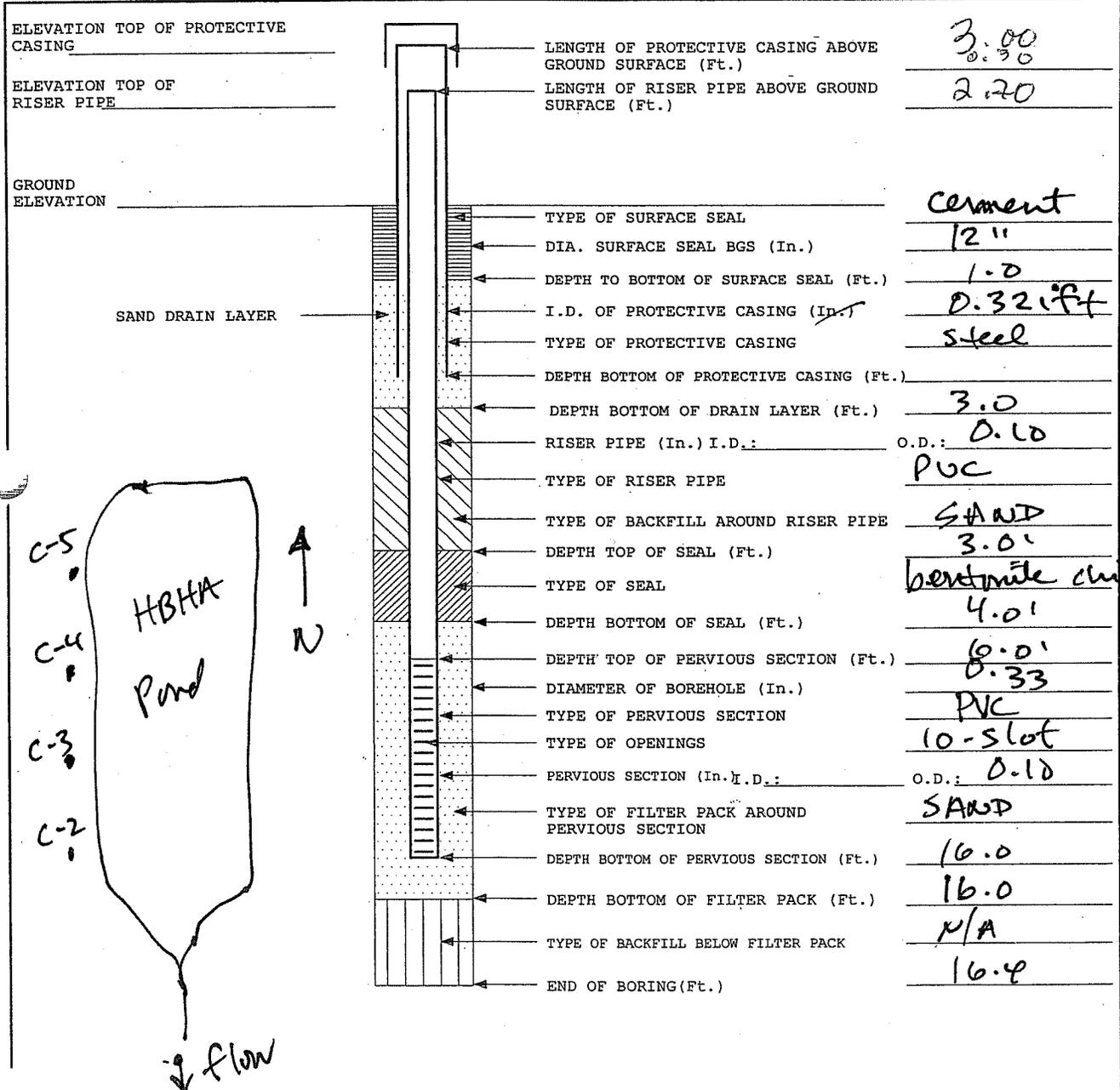
LENGTH RISER PIPE BELOW GRD. SURF. (Ft.)	<u>0.2ft</u>
TYPE OF SURFACE SEAL	<u>Cement</u>
DIA. SURFACE SEAL BGS (In.)	<u>1.0</u>
DEPTH TO BOTTOM OF SURFACE SEAL (Ft.)	<u>1.0</u>
I.D. OF PROTECTIVE CASING (In.)	<u>0.33</u>
TYPE OF PROTECTIVE CASING	<u>Flushmount cast iron</u>
DEPTH BOTTOM OF PROTECTIVE CASING (Ft.)	<u>0.85</u>
DEPTH BOTTOM OF DRAIN LAYER (Ft.)	<u>2.5</u>
RISER PIPE (In.) I.D.: <u>0.08</u>	O.D.: <u>0.10</u>
TYPE OF RISER PIPE	<u>PVC</u>
TYPE OF BACKFILL AROUND RISER PIPE	<u>SAND</u>
DEPTH TOP OF SEAL (Ft.)	<u>2.5</u>
TYPE OF SEAL	<u>bedmate</u>
DEPTH BOTTOM OF SEAL (Ft.)	<u>9</u>
DEPTH TOP OF PERVIOUS SECTION (Ft.)	<u>11</u>
DIAMETER OF BOREHOLE (In.)	<u>0.325</u>
TYPE OF PERVIOUS SECTION	<u>PVC-10 slot</u>
TYPE OF OPENINGS	<u>10 slot</u>
PERVIOUS SECTION (In.) I.D.:	O.D.:
TYPE OF FILTER PACK AROUND PERVIOUS SECTION	<u>SAND</u>
DEPTH BOTTOM OF PERVIOUS SECTION (Ft.)	<u>21'</u>
DEPTH BOTTOM OF FILTER PACK (Ft.)	<u>21'</u>
TYPE OF BACKFILL (GROUT) BELOW FILTER PACK	<u>N/A</u>
END OF BORING	<u>21'</u>

GENERAL NOTE:
 1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

OVERBURDEN MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS, INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>C-2 Shallow</u>
CLIENT: <u>US-EPA</u>	BORING NO: <u>C-2</u>
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>Adam/Bob D</u>
LOGGED BY: <u>K.O'Neill</u>	DATE: <u>4-10-02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>SW side of HBHA</u>	
PAGE: 1 OF 1	



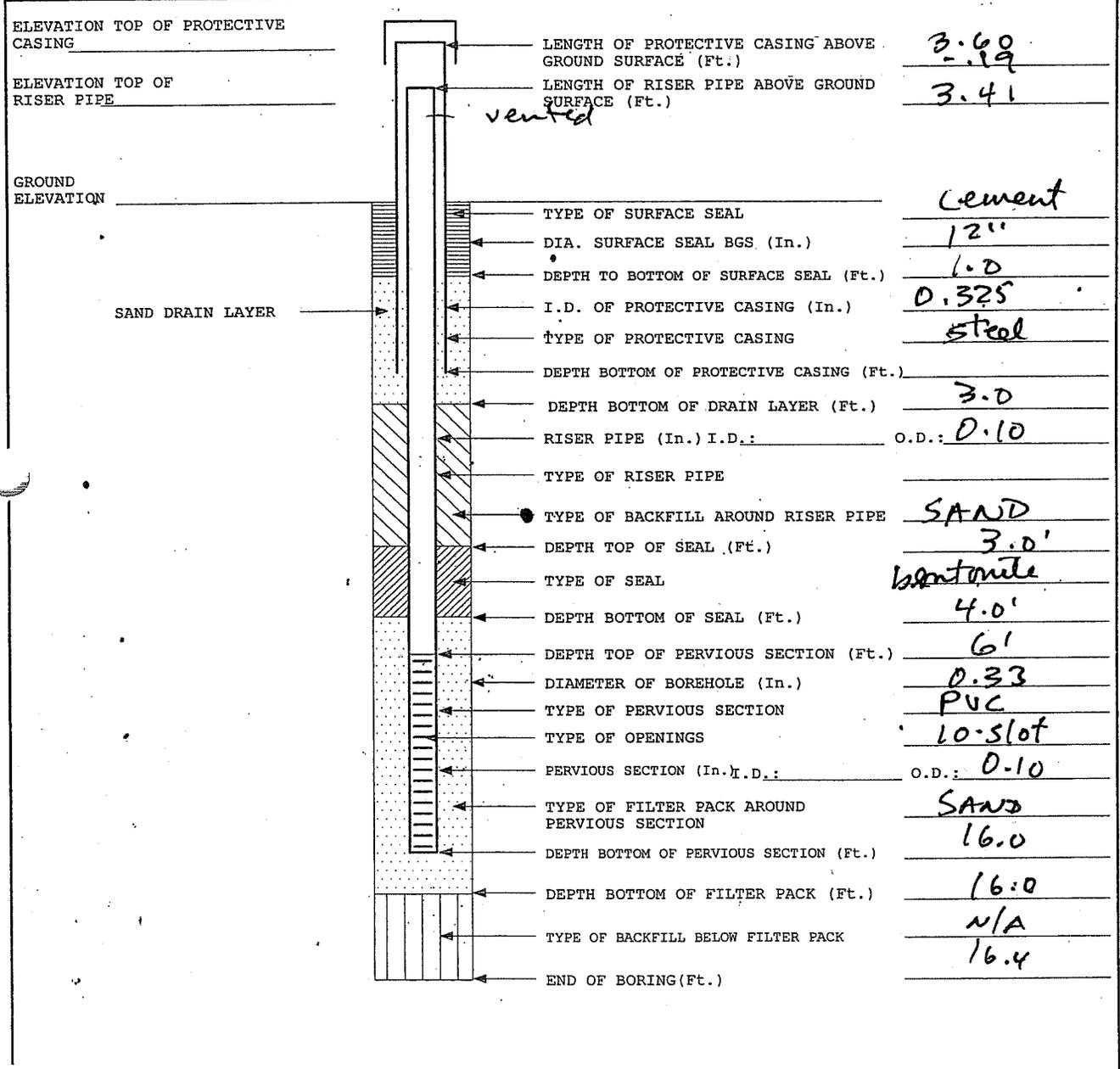
GENERAL NOTE :

1. Entry of 0.00 for Ground Elevation, Elev. Top of Riser Pipe & Elev. Top of Protective Casing Indicates that Surveyed Ground Elevation Not Available.

OVERBURDEN MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS, INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>C-3 shallow</u>
CLIENT: <u>US-EPA</u>	BORING NO: <u>C-3</u>
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>Adam</u>
LOGGED BY: <u>K O'Neill</u>	DATE: <u>4/10/02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>West side of TBHA</u>	
PAGE: 1 OF 1	

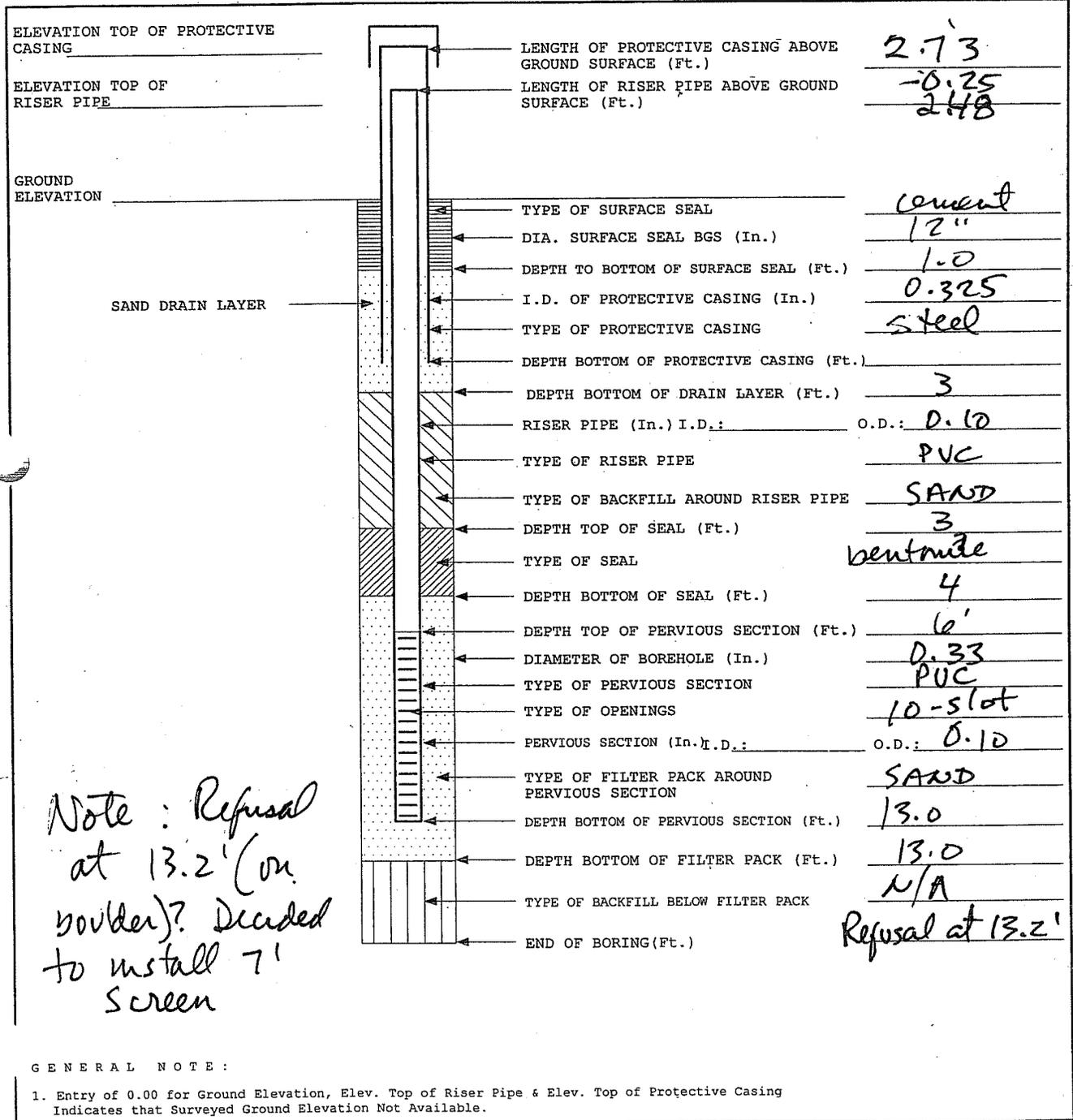


GENERAL NOTE:
 1. Entry of 0.00 for Ground Elevation, Elev. Top of Riser Pipe & Elev. Top of Protective Casing Indicates that Surveyed Ground Elevation Not Available.

OVERBURDEN MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS, INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>C-4</u>
CLIENT: <u>US-EPA</u>	BORING NO: <u>C-4 shallow</u>
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>Bobo</u>
LOGGED BY: <u>K. O'Neill</u>	DATE: <u>4-9-02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>West side HBHA</u>	
PAGE: 1 OF 1	

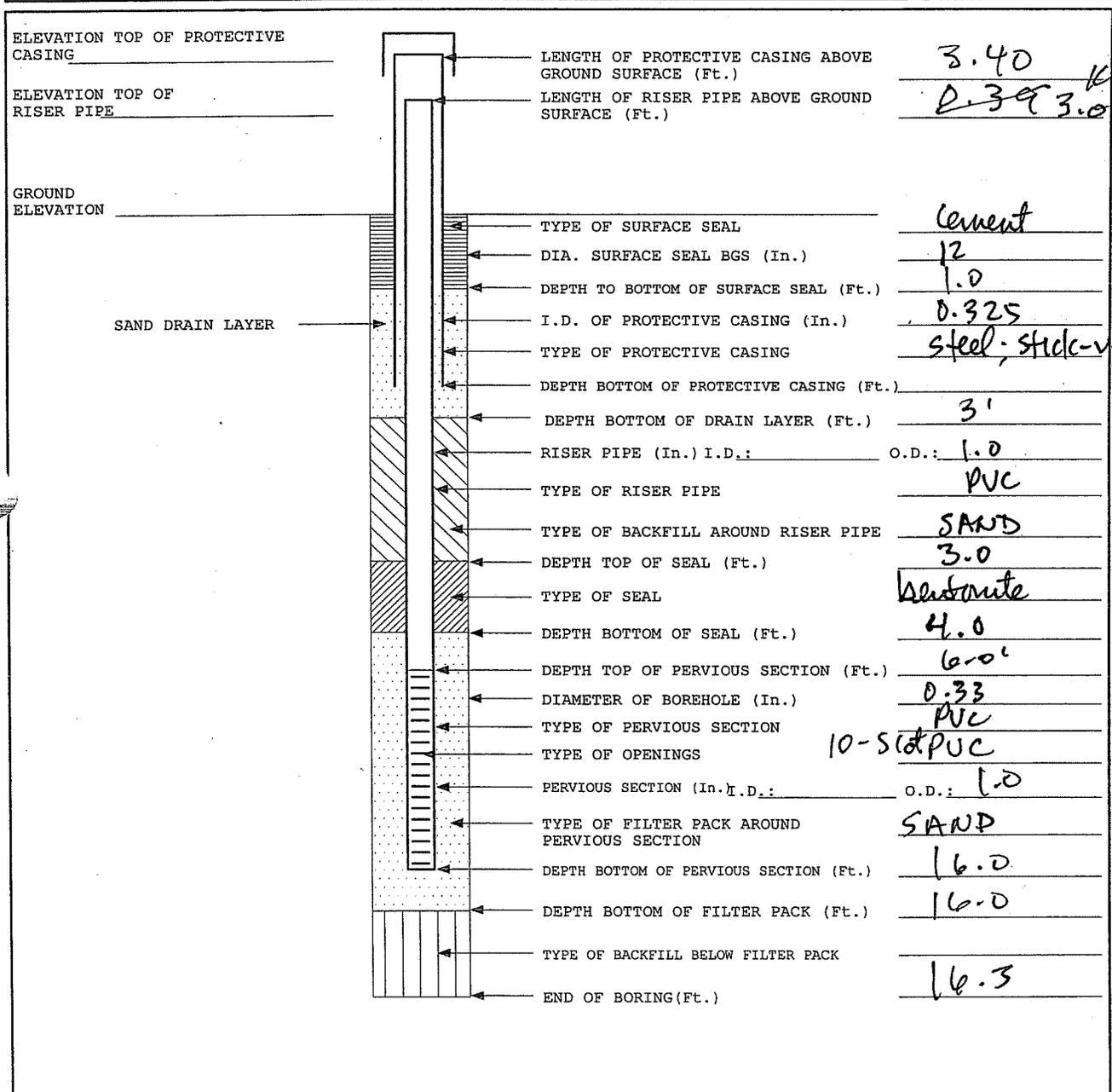


C-5 3:40

OVERBURDEN MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS, INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>C-5</u>
CLIENT: <u>HJS-EPA</u>	BORING NO: <u>C-5 shallow</u>
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>Adams</u>
LOGGED BY: <u>K.O'Neill</u>	DATE: <u>4-8-02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>West side of HBS 1st</u>	
PAGE: 1 OF 1	



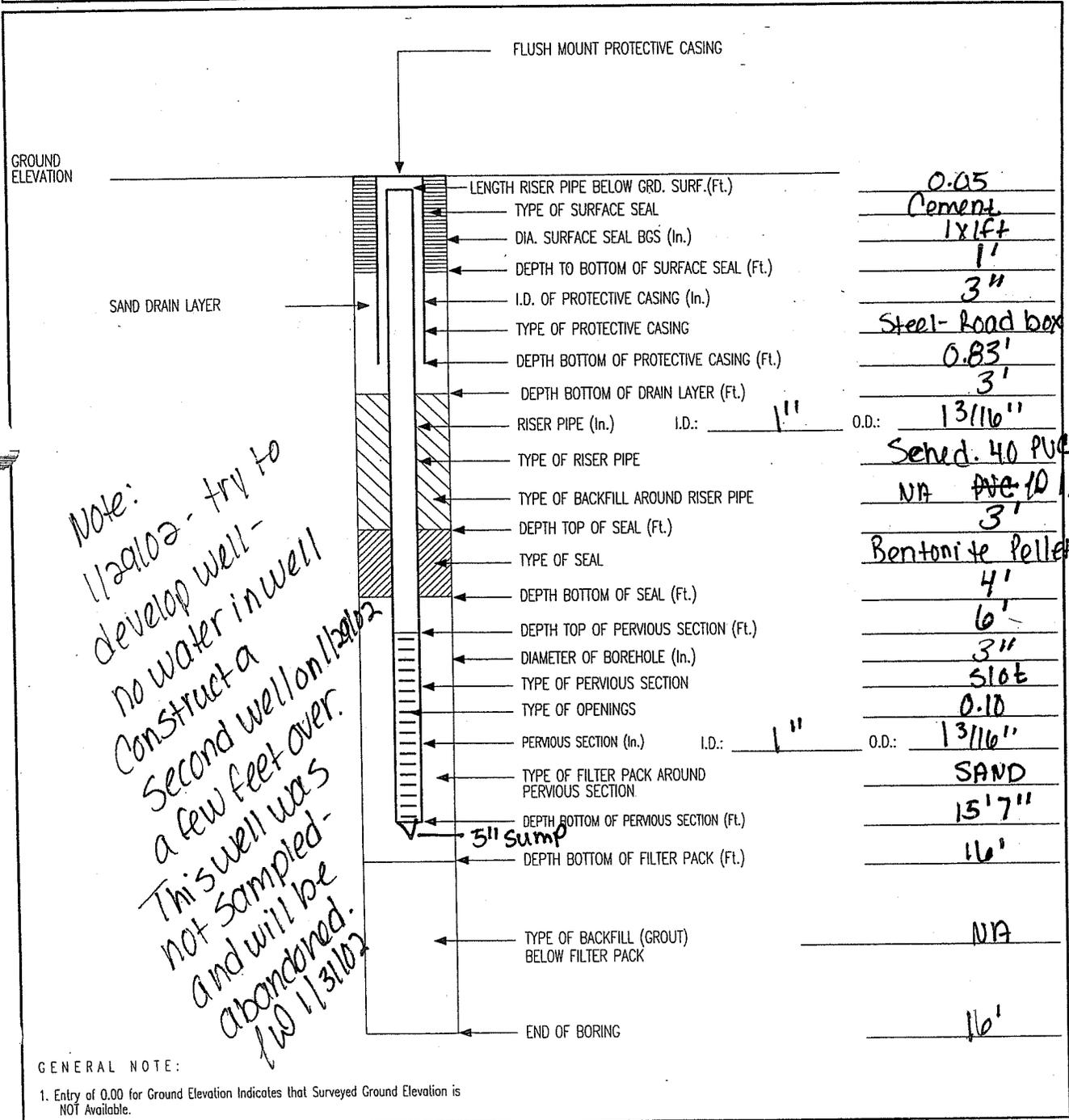
GENERAL NOTE :

- Entry of 0.00 for Ground Elevation, Elev. Top of Riser Pipe & Elev. Top of Protective Casing Indicates that Surveyed Ground Elevation Not Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS INC.

PROJECT NAME:	Industri-Plex	PROJECT NO:	N4123-0324
PROJECT LOCATION:	Woburn, MA.	WELL NO:	C-6 / 1st
CLIENT:	US EPA	BORING NO:	C-6 / attempt
CONTRACTOR:	American Drilling Johnson Company, INC	DRILLER:	R. Dean
LOGGED BY:	J. Daniels	DATE:	1/28/02
CHECKED BY:		DATE:	
		BORING LOCATION:	In Parking lot of Kamco- 181 New Boston.
		PAGE:	1 OF 1



*Note:
1/28/02 - try to
develop well -
no water in well -
construct a
second well on 1/28/02
a few feet over.
This well was
not sampled -
and will be
abandoned.
1/30/02*

0.05
Cement
1x1ft
1"
3"
Steel- Road box
0.83'
3'
13/16"
Sched. 40 PVC
NA 10/1/28/01
3'
Bentonite Pellets
4'
6'
3"
Slot
0.10
13/16"
SAND
15'7"
16'
NA
16'

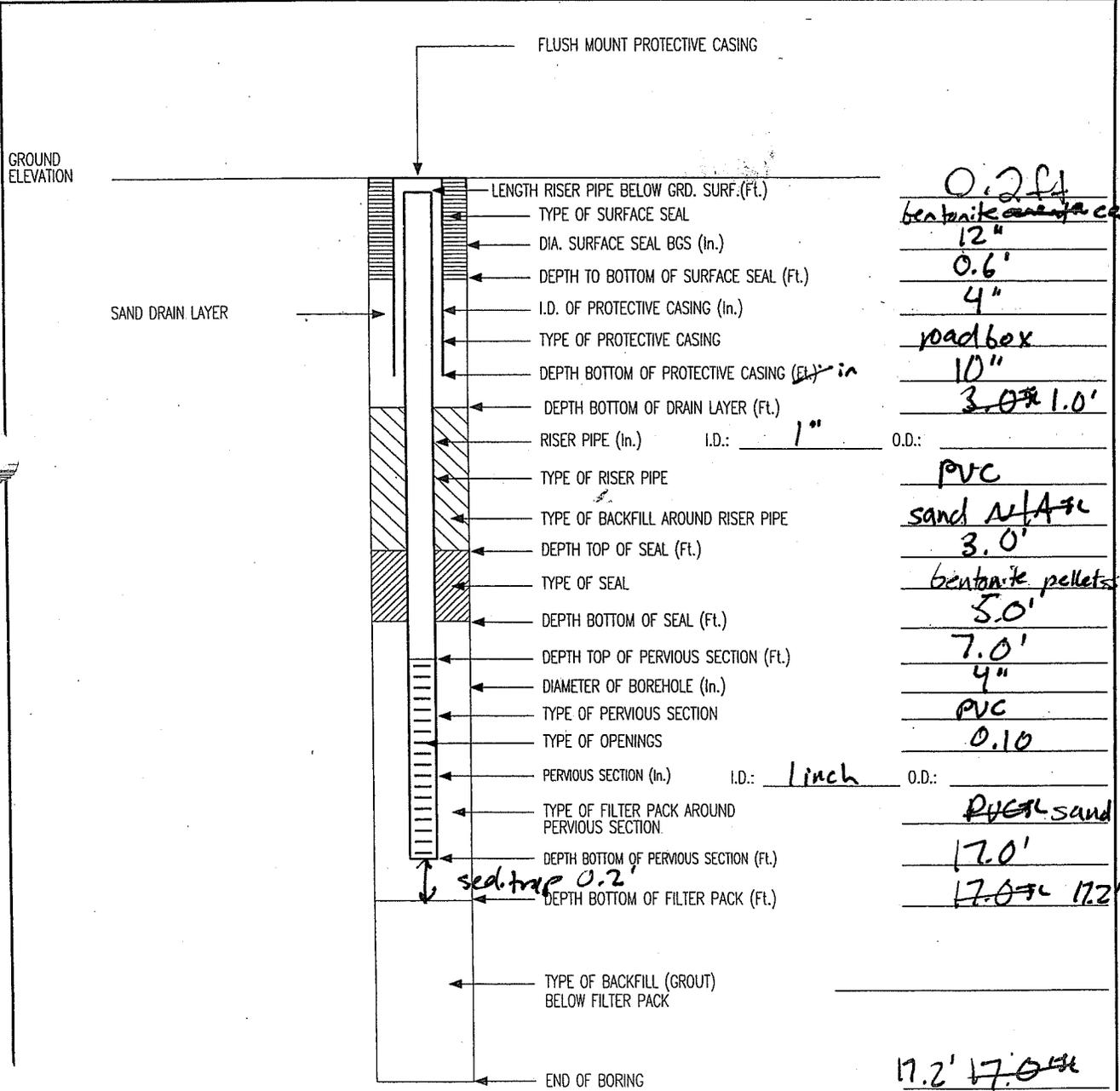
GENERAL NOTE:

1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>C-6 (2nd attempt)</u>
CLIENT: <u>US EPA</u>	BORING NO: _____
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: _____
LOGGED BY: <u>J. Lambert</u>	DATE: <u>1/29/02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>Note</u> <u>Parking Lot of Kamco</u> <u>181 New Boston St</u>	
PAGE: 1 OF 1	



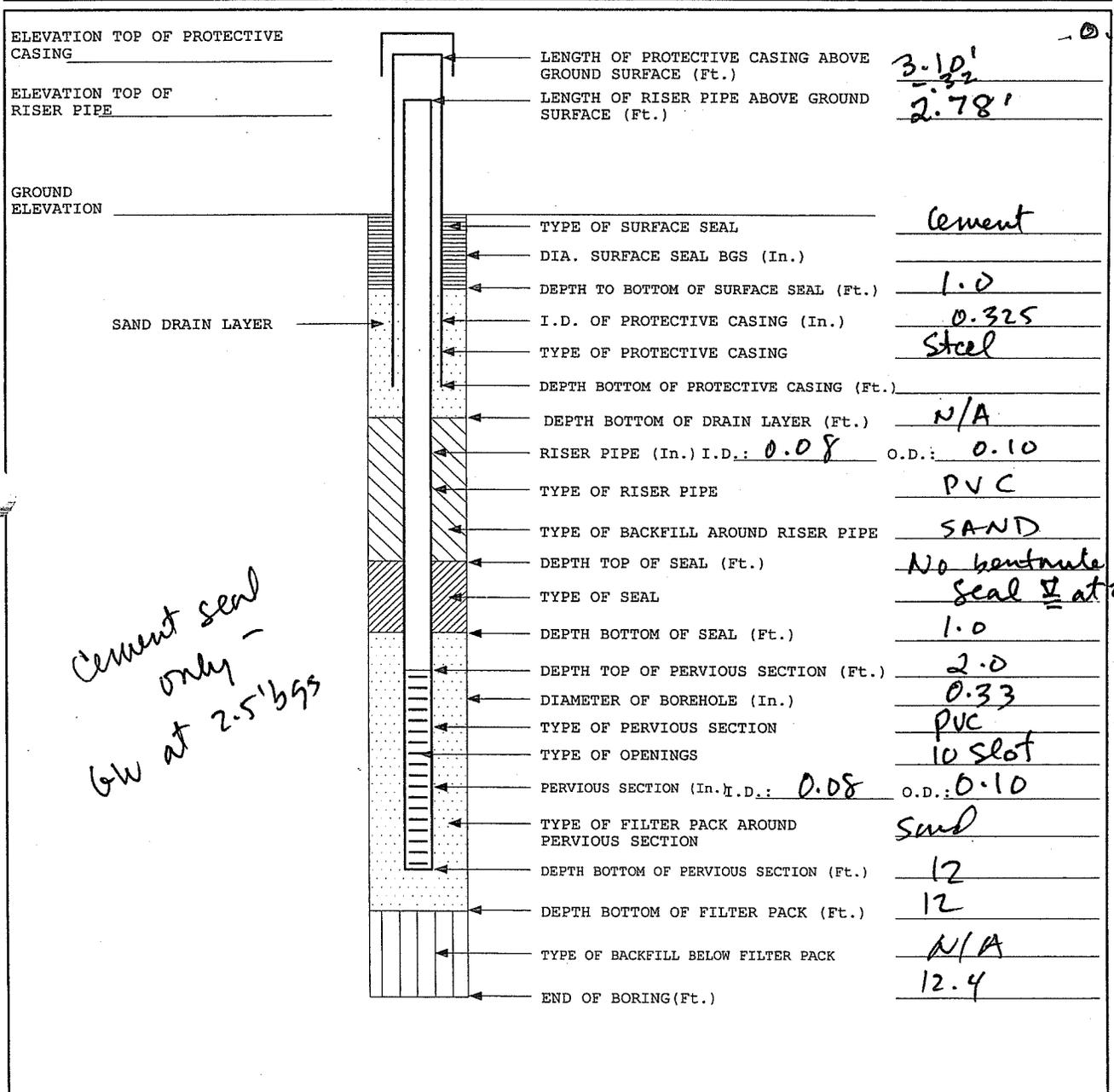
GENERAL NOTE:

1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

OVERBURDEN MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS, INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>E-1</u>
CLIENT: <u>U.S-EPA</u>	BORING NO: _____
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>Warren Daley / Adam</u>
LOGGED BY: <u>K D'Neil</u>	DATE: <u>2-11-02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>Gravel Road to Five Pond</u>	
PAGE: 1 OF 1	



ELEVATION TOP OF PROTECTIVE CASING	LENGTH OF PROTECTIVE CASING ABOVE GROUND SURFACE (Ft.)	<u>3.10'</u>
ELEVATION TOP OF RISER PIPE	LENGTH OF RISER PIPE ABOVE GROUND SURFACE (Ft.)	<u>2.78'</u>
GROUND ELEVATION	TYPE OF SURFACE SEAL	<u>Cement</u>
	DIA. SURFACE SEAL BGS (In.)	
	DEPTH TO BOTTOM OF SURFACE SEAL (Ft.)	<u>1.0</u>
	I.D. OF PROTECTIVE CASING (In.)	<u>0.325</u>
	TYPE OF PROTECTIVE CASING	<u>Steel</u>
	DEPTH BOTTOM OF PROTECTIVE CASING (Ft.)	
	DEPTH BOTTOM OF DRAIN LAYER (Ft.)	<u>N/A</u>
	RISER PIPE (In.) I.D.: <u>0.08</u>	O.D.: <u>0.10</u>
	TYPE OF RISER PIPE	<u>PVC</u>
	TYPE OF BACKFILL AROUND RISER PIPE	<u>SAND</u>
	DEPTH TOP OF SEAL (Ft.)	<u>No bentonite</u>
	TYPE OF SEAL	<u>Seal $\frac{1}{2}$ at 2.5' bgs</u>
	DEPTH BOTTOM OF SEAL (Ft.)	<u>1.0</u>
	DEPTH TOP OF PERVIOUS SECTION (Ft.)	<u>2.0</u>
	DIAMETER OF BOREHOLE (In.)	<u>0.33</u>
	TYPE OF PERVIOUS SECTION	<u>PVC</u>
	TYPE OF OPENINGS	<u>10 slot</u>
	PERVIOUS SECTION (In.) I.D.: <u>0.08</u>	O.D.: <u>0.10</u>
	TYPE OF FILTER PACK AROUND PERVIOUS SECTION	<u>Sand</u>
	DEPTH BOTTOM OF PERVIOUS SECTION (Ft.)	<u>12</u>
	DEPTH BOTTOM OF FILTER PACK (Ft.)	<u>12</u>
	TYPE OF BACKFILL BELOW FILTER PACK	<u>N/A</u>
	END OF BORING (Ft.)	<u>12.4</u>

*Cement seal only -
bgs at 2.5' bgs*

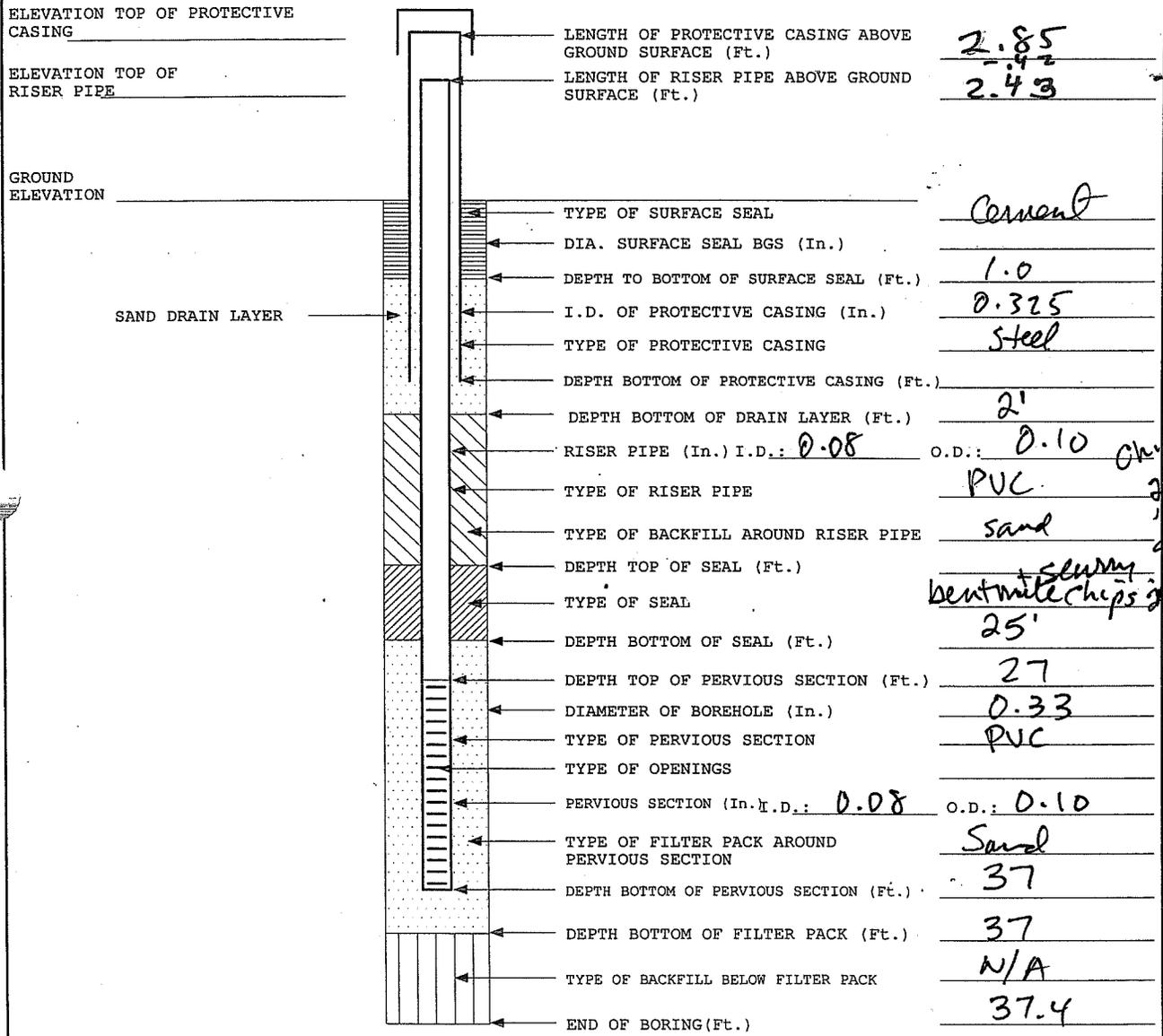
0.32

bgs

GENERAL NOTE:

- Entry of 0.00 for Ground Elevation, Elev. Top of Riser Pipe & Elev. Top of Protective Casing Indicates that Surveyed Ground Elevation Not Available.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>E-1M</u>
CLIENT: <u>US-EPA</u>	BORING NO: _____
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>Don Maynard</u>
LOGGED BY: <u>K. O'Neill</u>	DATE: <u>2-12-02</u>
CHECKED BY: _____	DATE: _____
	BORING LOCATION: <u>Intermediate Depth</u>
	PAGE: 1 OF 1



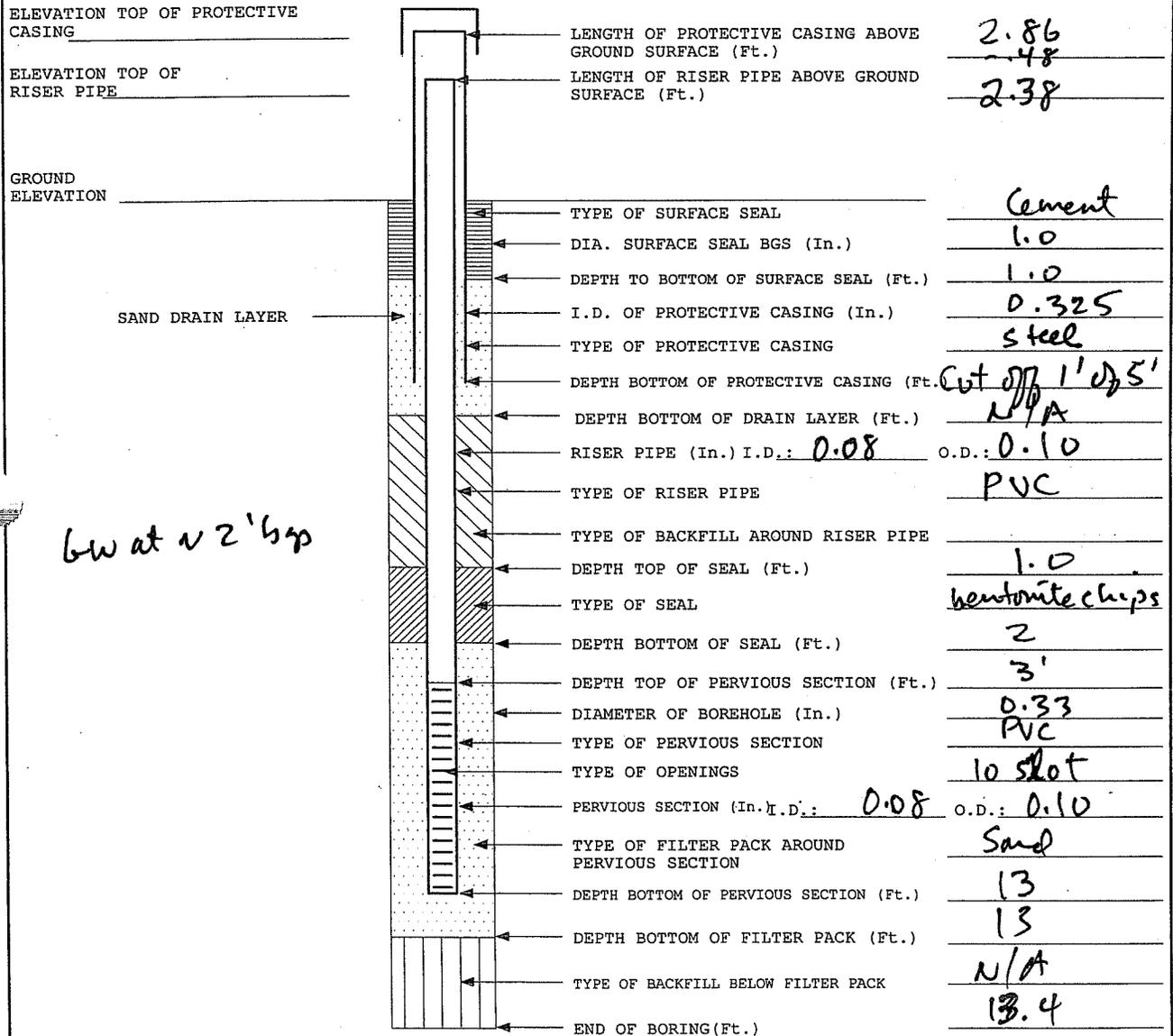
GENERAL NOTE:

- Entry of 0.00 for Ground Elevation, Elev. Top of Riser Pipe & Elev. Top of Protective Casing Indicates that Surveyed Ground Elevation Not Available.

OVERBURDEN MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS, INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>E-2</u>
CLIENT: <u>US-EPA</u>	BORING NO: _____
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: _____
LOGGED BY: <u>K.O'Neill</u>	DATE: <u>2-13-02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: _____	
PAGE: 1 OF 1	



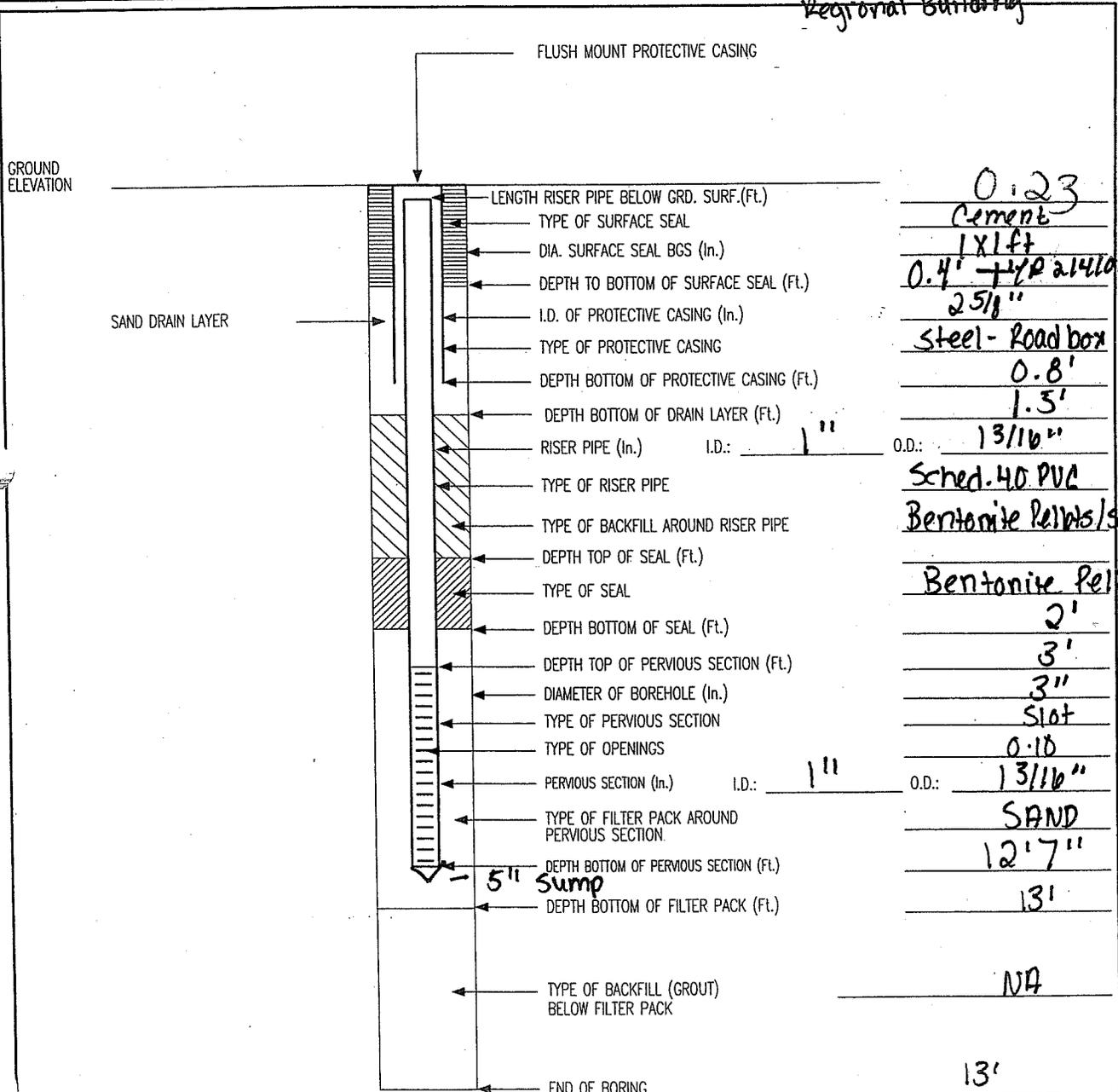
GENERAL NOTE :

- Entry of 0.00 for Ground Elevation, Elev. Top of Riser Pipe & Elev. Top of Protective Casing Indicates that Surveyed Ground Elevation Not Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>E-3</u>
CLIENT: <u>US EPA</u>	BORING NO: <u>E-3</u>
CONTRACTOR: <u>American Drilling Johnson Company, INC</u>	DRILLER: <u>R. Dean</u>
LOGGED BY: <u>J. Danieli</u>	DATE: _____
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>in Parking Lot - Behind Former DEP Northeast Regional Building</u>	
PAGE: 1 OF 1	



GENERAL NOTE:

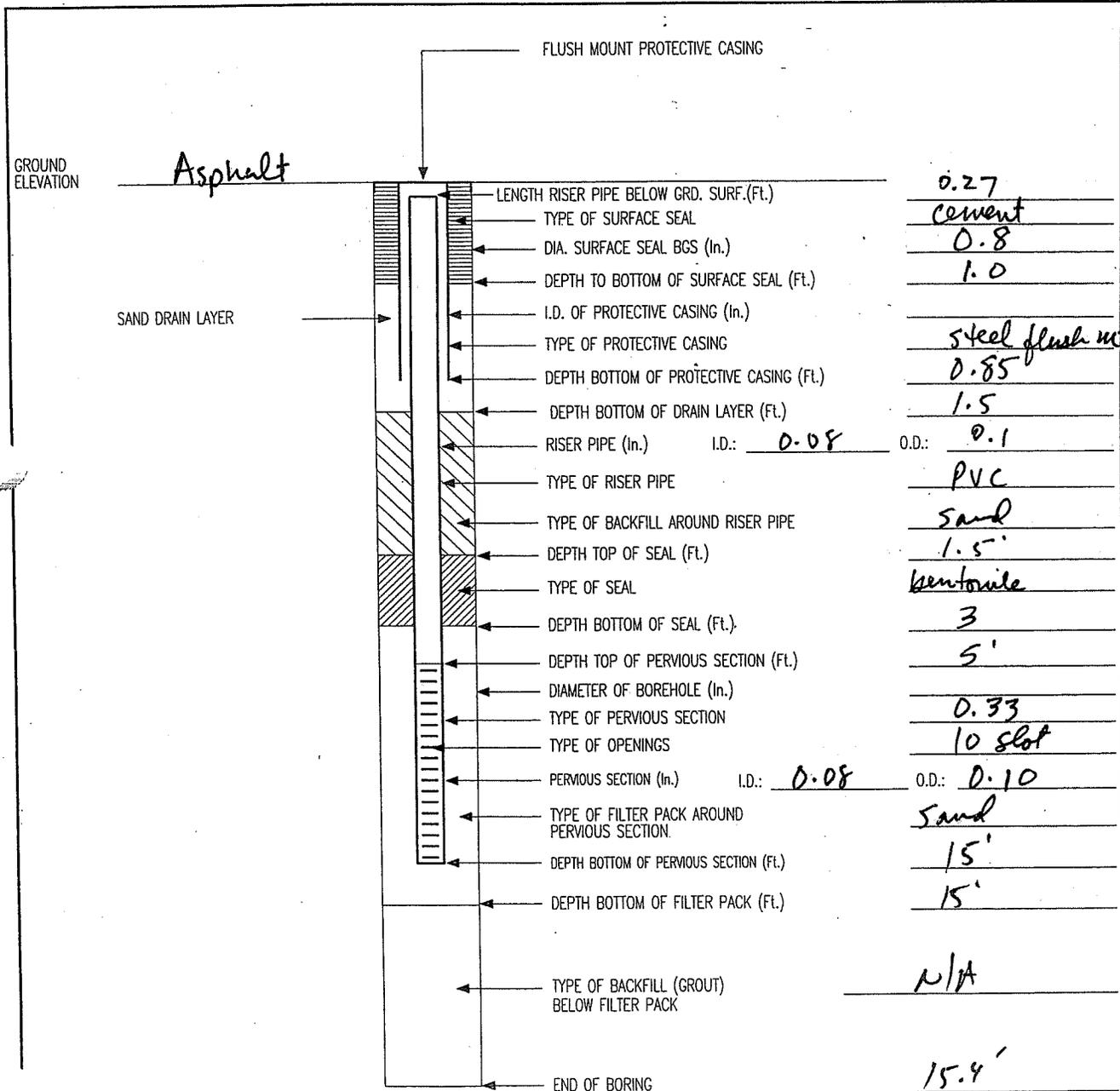
1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>E4</u>
CLIENT: <u>US EPA</u>	BORING NO: _____
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>Chris</u>
LOGGED BY: <u>K. O'Neill</u>	DATE: <u>2-4-02</u>
CHECKED BY: _____	DATE: _____

PAGE: 1 OF 1

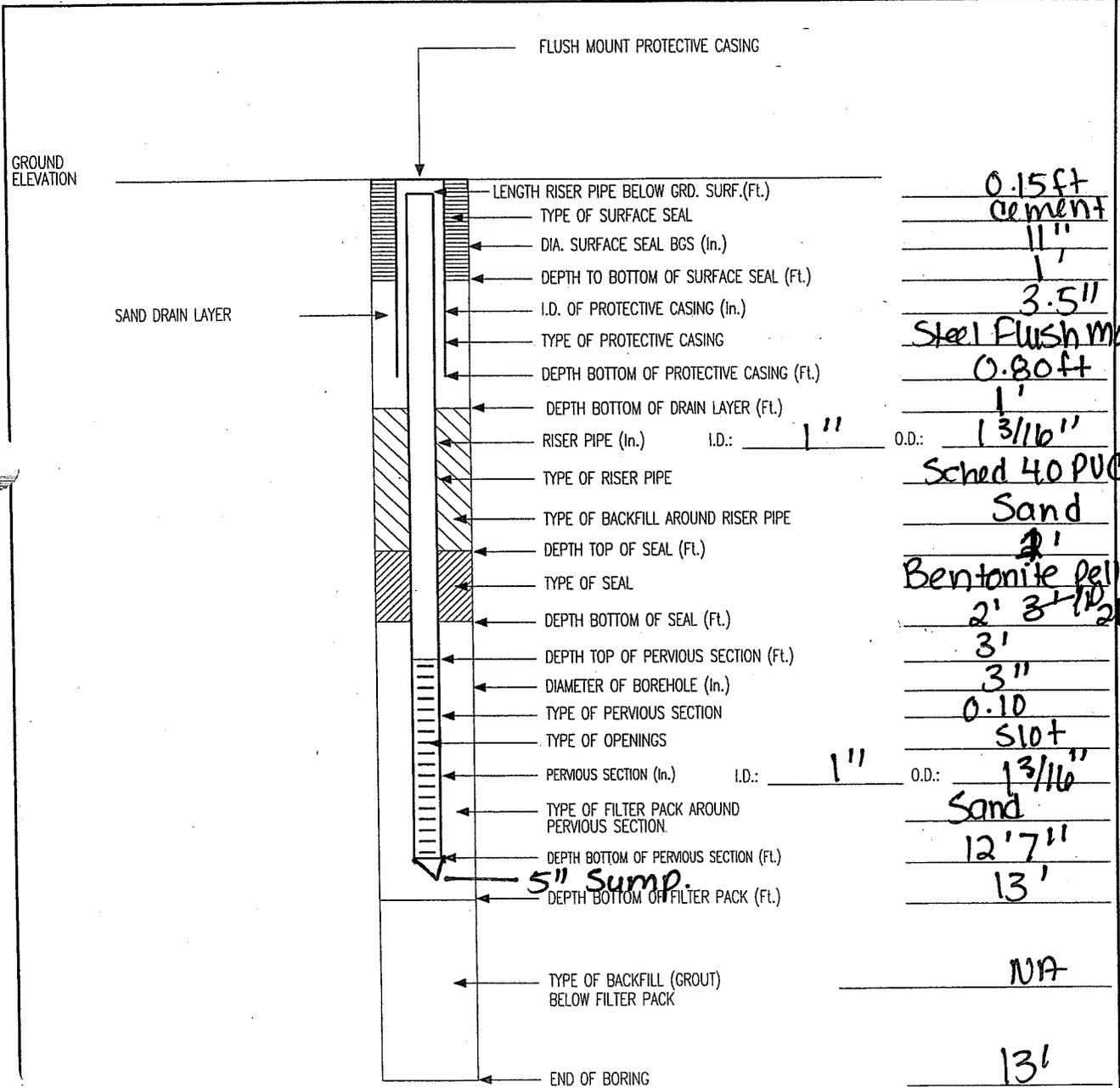


GENERAL NOTE:
 1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA</u>	WELL NO: <u>E-5</u>
CLIENT: <u>US EPA</u>	BORING NO: <u>E-5</u>
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>D. Maynard</u>
LOGGED BY: <u>J. Danieli</u>	DATE: <u>2/15/02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>Wooded Area- Behind Mall Parking Lot</u>	
PAGE: 1 OF 1	

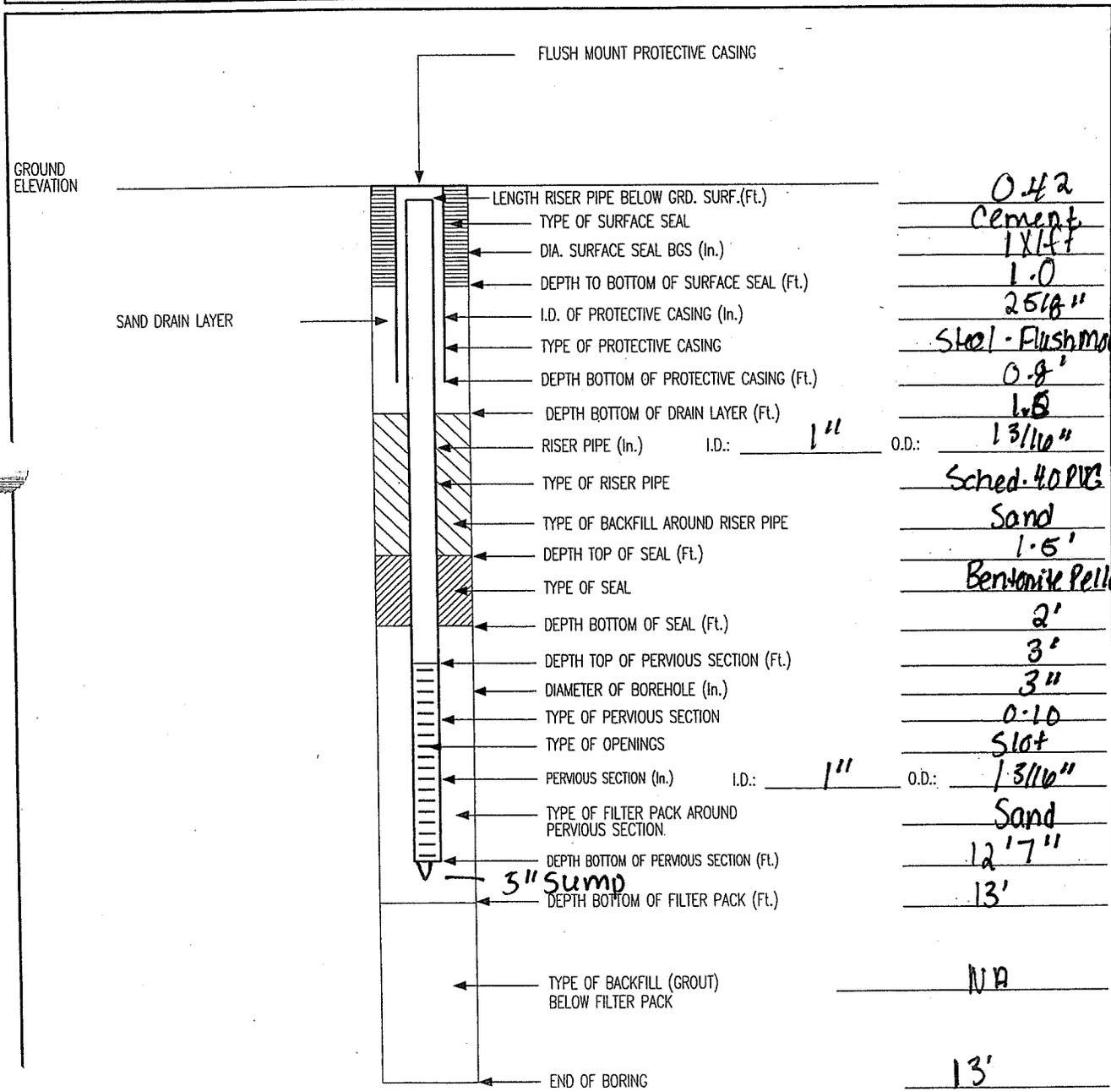


GENERAL NOTE:
 1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>E-6</u>
CLIENT: <u>US EPA</u>	BORING NO: <u>E-6</u>
CONTRACTOR: <u>American Drilling Johnson Company, INC</u>	BORING LOCATION: <u>Behind VMPA - OFF OF Cabot Rd.</u>
LOGGED BY: <u>J. Danesi</u>	DRILLER: <u>R. Dean</u>
CHECKED BY: _____	DATE: <u>2/6/02</u>
	DATE: _____
	PAGE: 1 OF 1



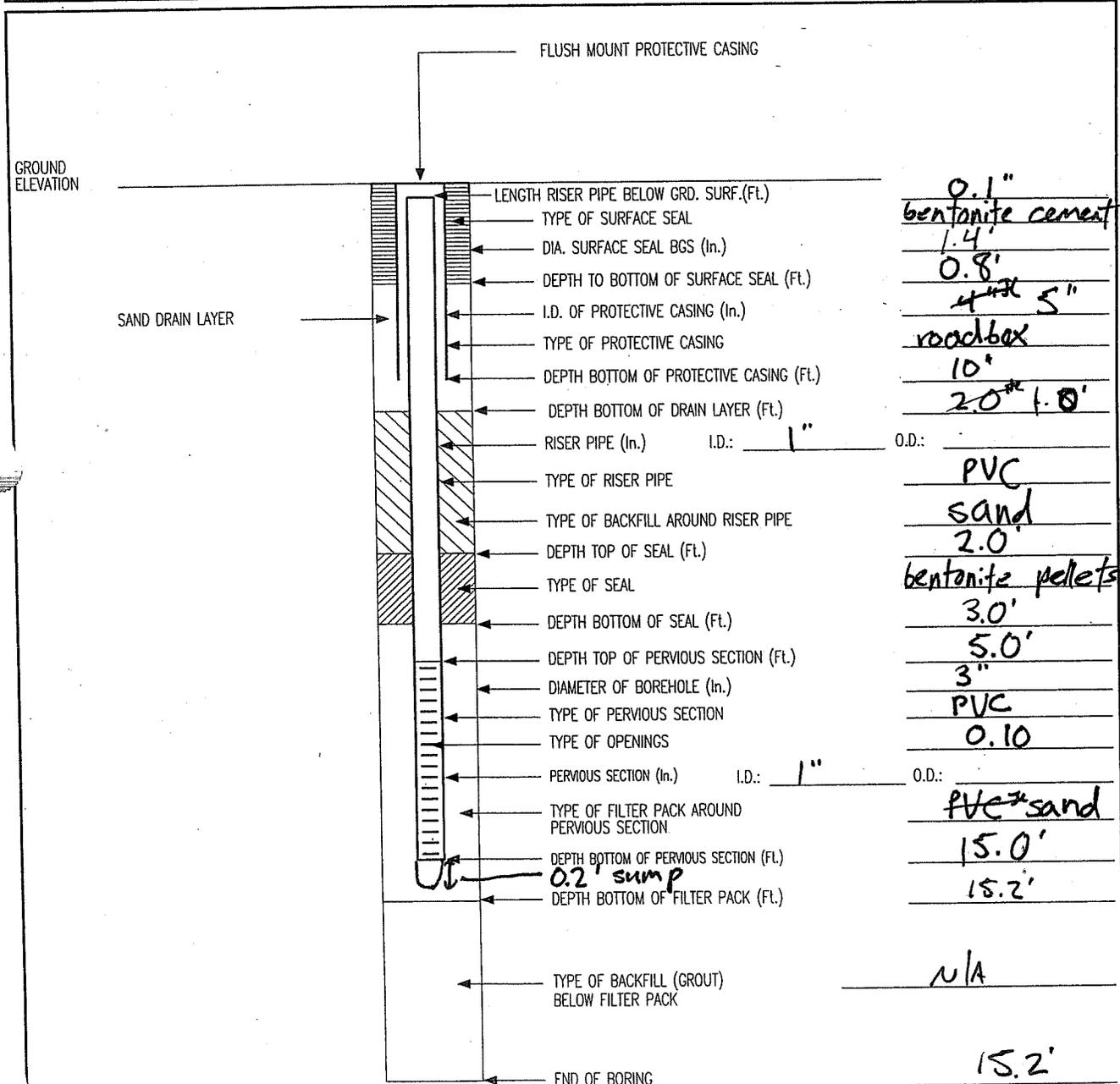
GENERAL NOTE:

1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>E.7</u>
CLIENT: <u>US EPA</u>	BORING NO: _____
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>Johnson Co.</u>
LOGGED BY: <u>J. Lambert</u>	DATE: <u>2/20/02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>median strip in front of ProSource</u>	
PAGE: 1 OF 1	



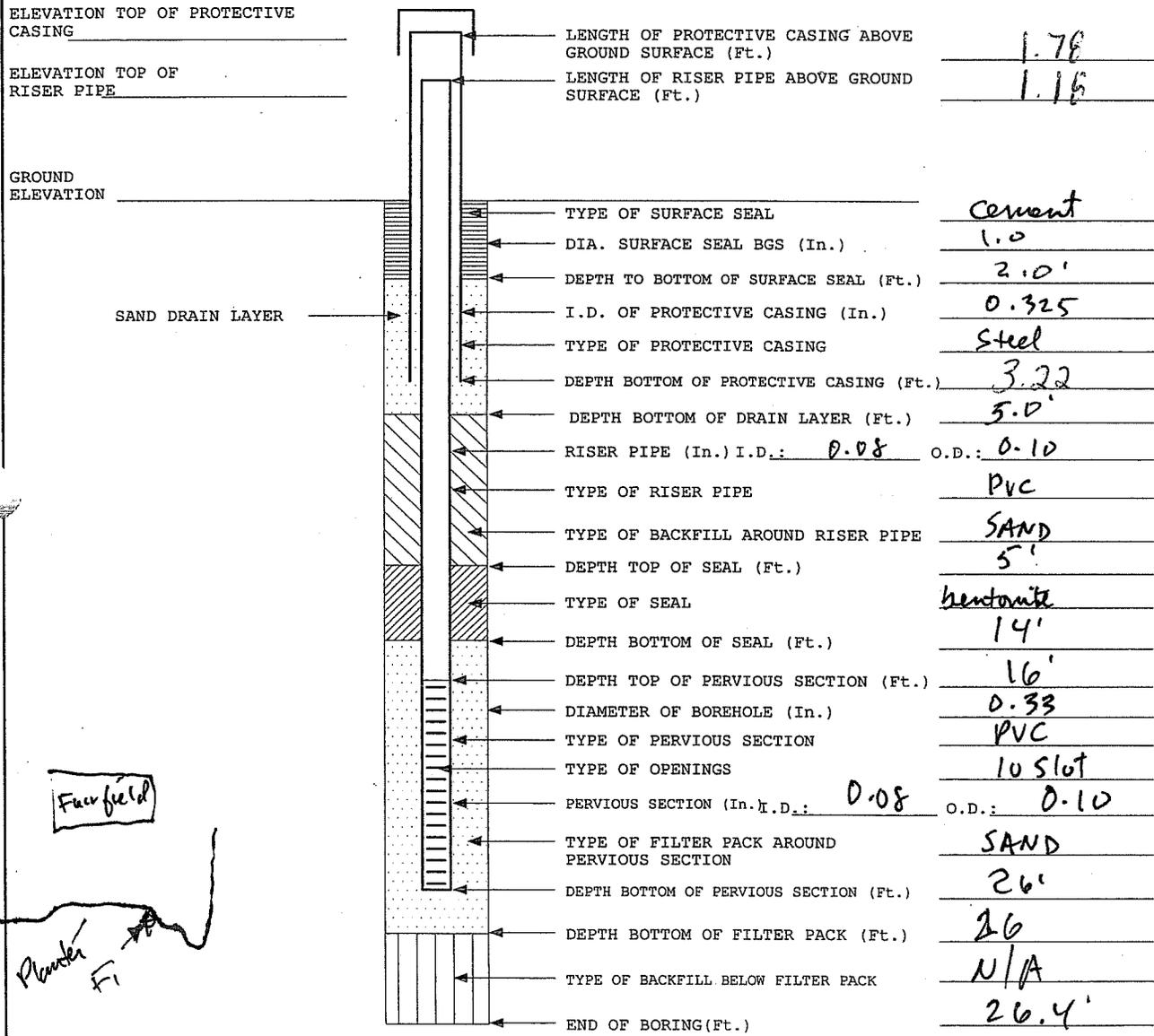
GENERAL NOTE:

1. Entry of 0.00 for Ground Elevation indicates that Surveyed Ground Elevation is NOT Available.

OVERBURDEN MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS, INC.

PROJECT NAME: <u>Industri-Plex</u>		PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>		WELL NO: <u>F-1</u>
CLIENT: <u>U.S.-EPA</u>		BORING NO: _____
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>Chris / Don Mcgrath</u>	BORING LOCATION: _____
LOGGED BY: <u>K. O'Neill</u>	DATE: <u>2/7/02</u>	<u>Fairfield Inn (Front)</u>
CHECKED BY: _____	DATE: _____	PAGE: 1 OF 1



GENERAL NOTE :

- Entry of 0.00 for Ground Elevation, Elev. Top of Riser Pipe & Elev. Top of Protective Casing Indicates that Surveyed Ground Elevation Not Available.

OVERBURDEN MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS, INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>F-1 (deep well)</u>
CLIENT: <u>U.S. EPA</u>	BORING NO: <u>F-1</u>
CONTRACTOR: <u>Sub: America Drilling Johnson Company, INC</u>	DRILLER: <u>B. Brodrick</u>
LOGGED BY: <u>J. Danielli</u>	DATE: <u>3/30/02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>Front Parking lot of Fairfield Inn on Mishawum Rd.</u>	
PAGE: 1 OF 1	

ELEVATION TOP OF PROTECTIVE CASING _____	LENGTH OF PROTECTIVE CASING ABOVE GROUND SURFACE (Ft.)	<u>2.6</u>
ELEVATION TOP OF RISER PIPE _____	LENGTH OF RISER PIPE ABOVE GROUND SURFACE (Ft.)	<u>2.42</u>
GROUND ELEVATION _____	TYPE OF SURFACE SEAL	<u>Cement</u>
	DIA. SURFACE SEAL BGS (In.)	
	DEPTH TO BOTTOM OF SURFACE SEAL (Ft.)	<u>0.7ft</u>
	I.D. OF PROTECTIVE CASING (In.)	<u>6"</u>
	TYPE OF PROTECTIVE CASING	<u>Steel</u>
	DEPTH BOTTOM OF PROTECTIVE CASING (Ft.)	<u>2.4'</u>
	DEPTH BOTTOM OF DRAIN LAYER (Ft.)	<u>3'</u>
	RISER PIPE (In.) I.D.: <u>2"</u> O.D.: <u>2 3/8"</u>	
	TYPE OF RISER PIPE	<u>Sched. 40 PVC</u>
	TYPE OF BACKFILL AROUND RISER PIPE	<u>Bentonite Grout</u>
	DEPTH TOP OF SEAL (Ft.)	<u>107'</u>
	TYPE OF SEAL	<u>Bentonite Chips</u>
	DEPTH BOTTOM OF SEAL (Ft.)	<u>109'</u>
	DEPTH TOP OF PERVIOUS SECTION (Ft.)	<u>109.58'</u>
	DIAMETER OF BOREHOLE (In.)	<u>4.5"</u>
	TYPE OF PERVIOUS SECTION	<u>* Pre pack sand = No. 1 silica slot & screen 0.10 slot</u>
	TYPE OF OPENINGS	<u>0.10</u>
	PERVIOUS SECTION (In.) I.D.: <u>2"</u> O.D.: <u>2 3/8"</u>	
	TYPE OF FILTER PACK AROUND PERVIOUS SECTION	<u>No. 1 Sand-Silica</u>
	DEPTH BOTTOM OF PERVIOUS SECTION (Ft.)	<u>119.58</u>
	DEPTH BOTTOM OF FILTER PACK (Ft.)	<u>119.58</u>
	TYPE OF BACKFILL BELOW FILTER PACK	<u>Bentonite Chips 122</u>
	END OF BORING (Ft.)	<u>No. 1 Sand 121ft</u> <u>Natural Backfill 119:</u> <u>127ft</u>

Note: Well Screen intended for ~~120.5-121.5~~ 121 - 111ft → Well was pulled up 1.42 ft - when 4" casing was being removed. Drive shoe caved in & bentonite chips caught on drive shoe - which caught PVC well - when pulling casing.

W/in sand filter pack { Sed. trap = 0.3ft

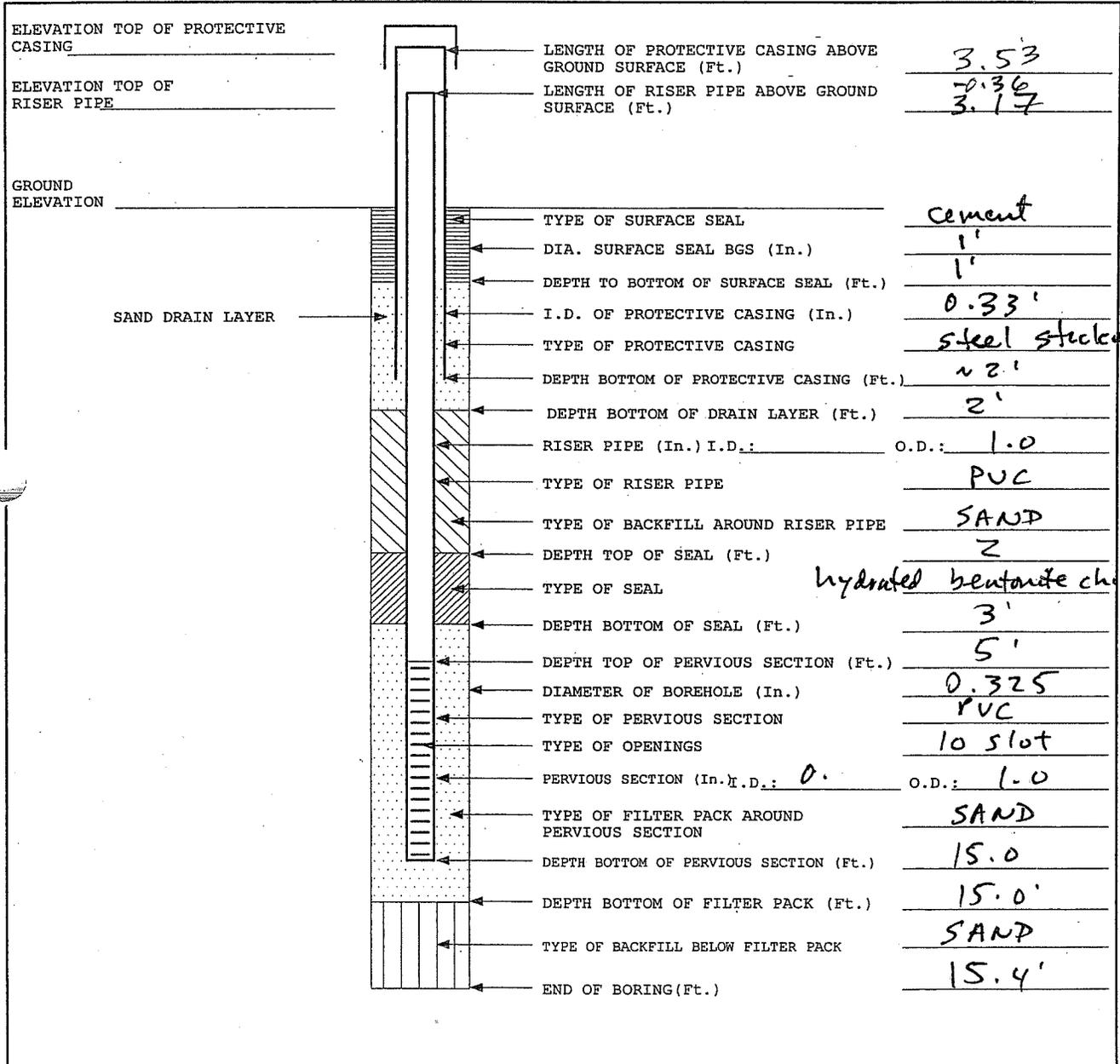
* = Well screen = pre packed Well screen
Screen w/in pre-pack - 2" ID 2 3/8" OD 0.10 slot
Pack around Well screen = 2 3/8" ID 3" OD 0.10 slot includes No. 1 silica sand

1. Entry of 0.00 for Ground Elevation, Elev. Top of Riser Pipe & Elev. Top of Protective Casing Indicates that Surveyed Ground Elevation Not Available.

OVERBURDEN MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS, INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>F-2</u>
CLIENT: <u>U.S-EPA</u>	BORING NO: <u>F-2</u>
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>Warren</u>
LOGGED BY: <u>K. O'Neill</u>	DATE: <u>3-26-02</u>
CHECKED BY: _____	DATE: _____
	BORING LOCATION: <u>Shallow</u>
	<u>99 Rest (west)</u>
	PAGE: 1 OF 1



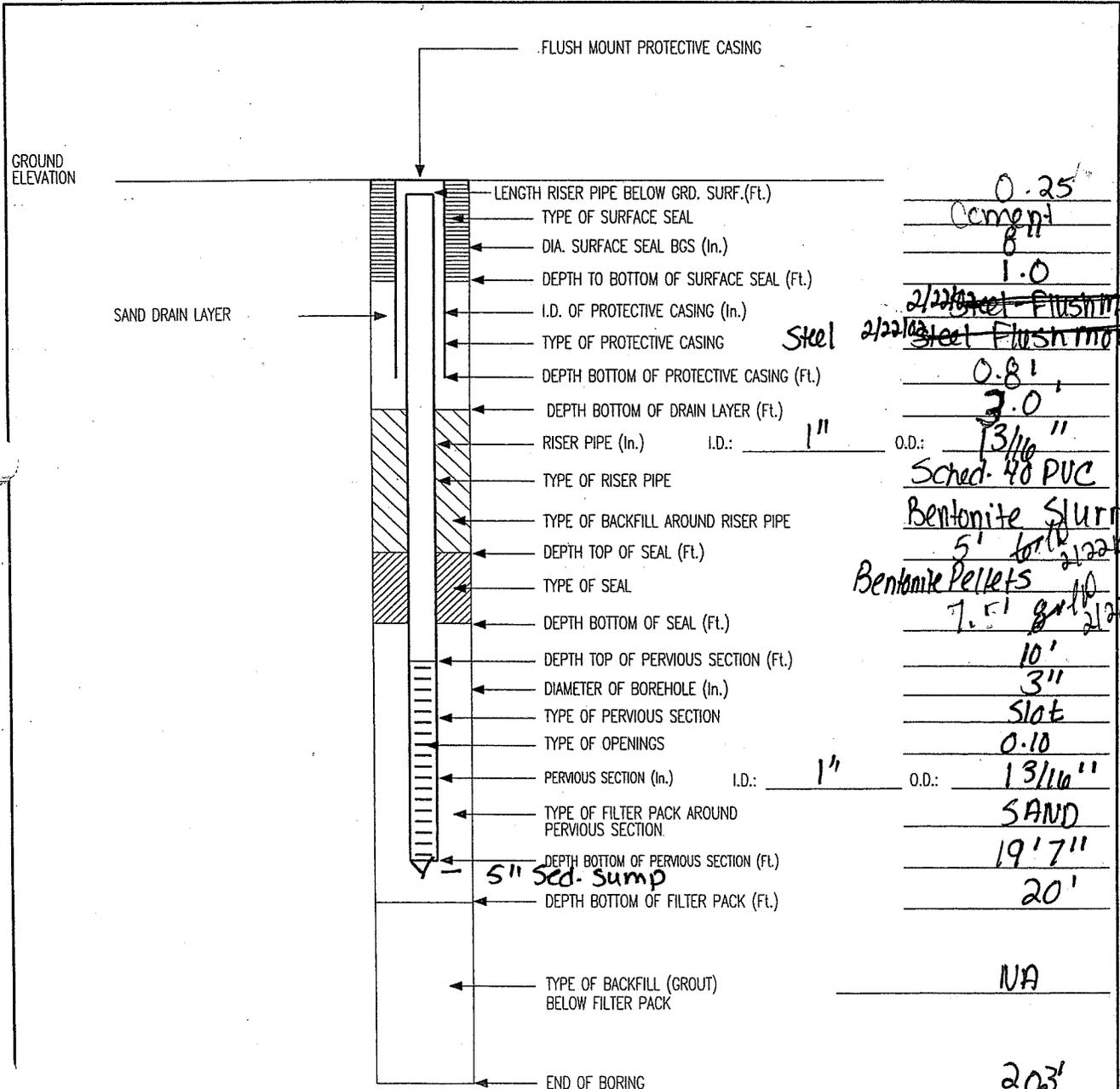
GENERAL NOTE :

1. Entry of 0.00 for Ground Elevation, Elev. Top of Riser Pipe & Elev. Top of Protective Casing Indicates that Surveyed Ground Elevation Not Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>F-3</u>
CLIENT: <u>US EPA</u>	BORING NO: <u>F-3</u>
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>W. Davey</u>
LOGGED BY: <u>J. Daniels</u>	DATE: <u>2/22/02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>Kids R US / Petco Parking Lot.</u>	
PAGE: 1 OF 1	

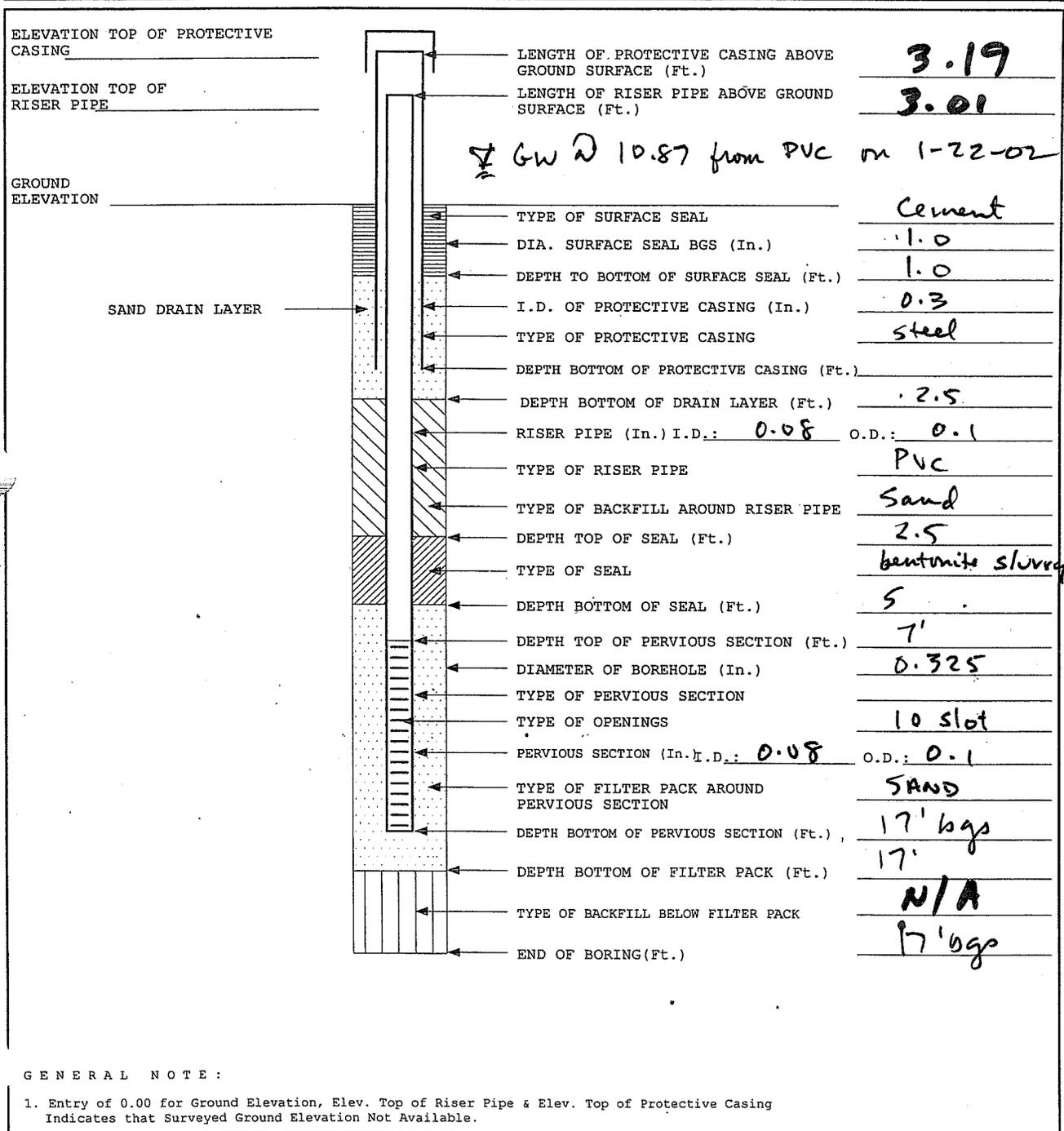


GENERAL NOTE:
 1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

OVERBURDEN MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS, INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>G-1</u>
CLIENT: <u>US-EPA</u>	BORING NO: _____
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>Clvis</u>
LOGGED BY: <u>K.O'Neill</u>	DATE: <u>1-22-02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>Enterprise Parking lot along Mishawam</u>	
PAGE: 1 OF 1	



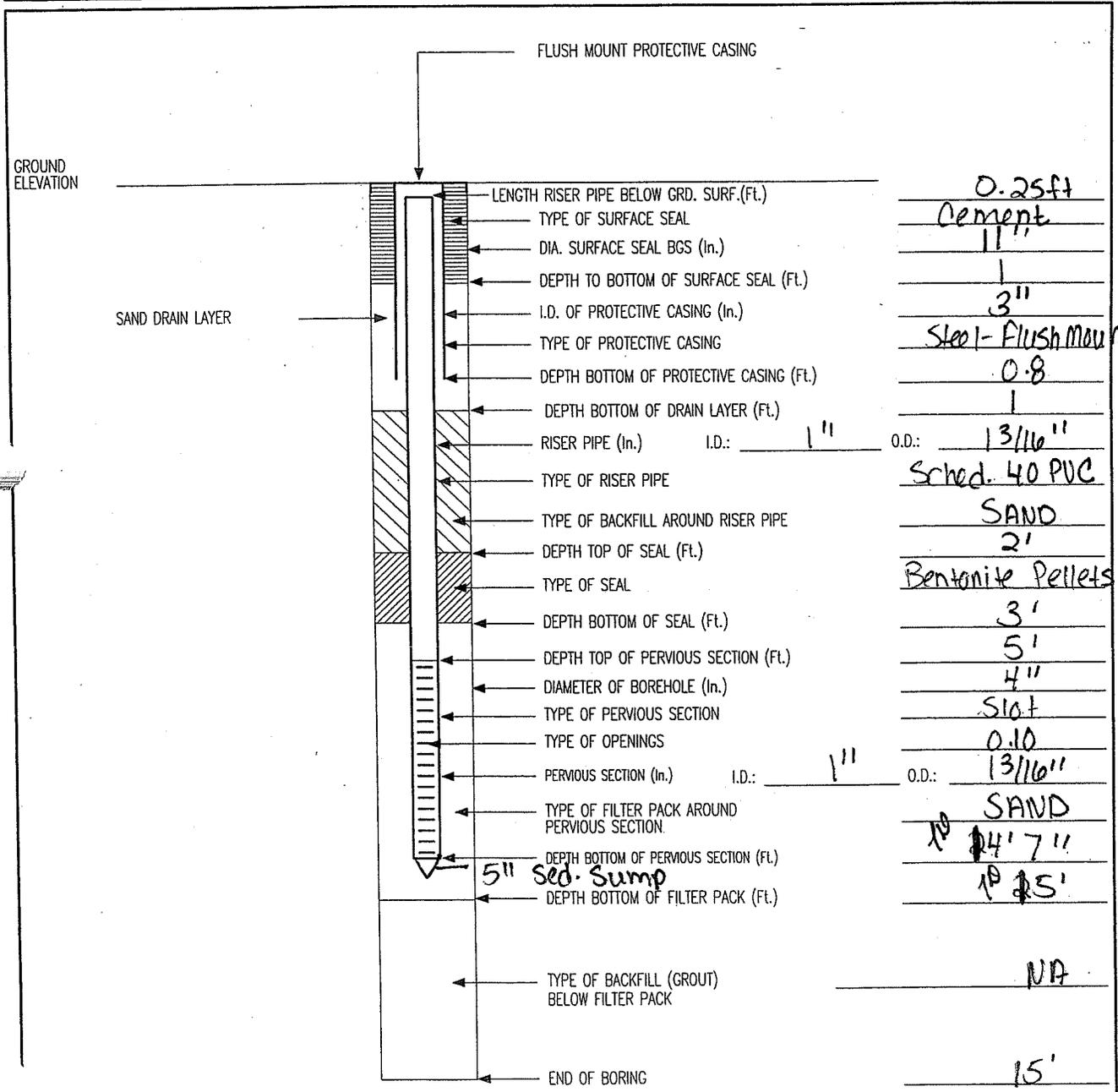
GENERAL NOTE:

1. Entry of 0.00 for Ground Elevation, Elev. Top of Riser Pipe & Elev. Top of Protective Casing Indicates that Surveyed Ground Elevation Not Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>G-2</u>
CLIENT: <u>US EPA</u>	BORING NO: <u>G-2</u>
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>W. Davey / B. Osborne</u>
LOGGED BY: <u>J. Danieli</u>	DATE: <u>2/2/02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>Behind Mechanics Uniform Btwn. NBHA + R.P Tracks</u>	
PAGE: 1 OF 1	



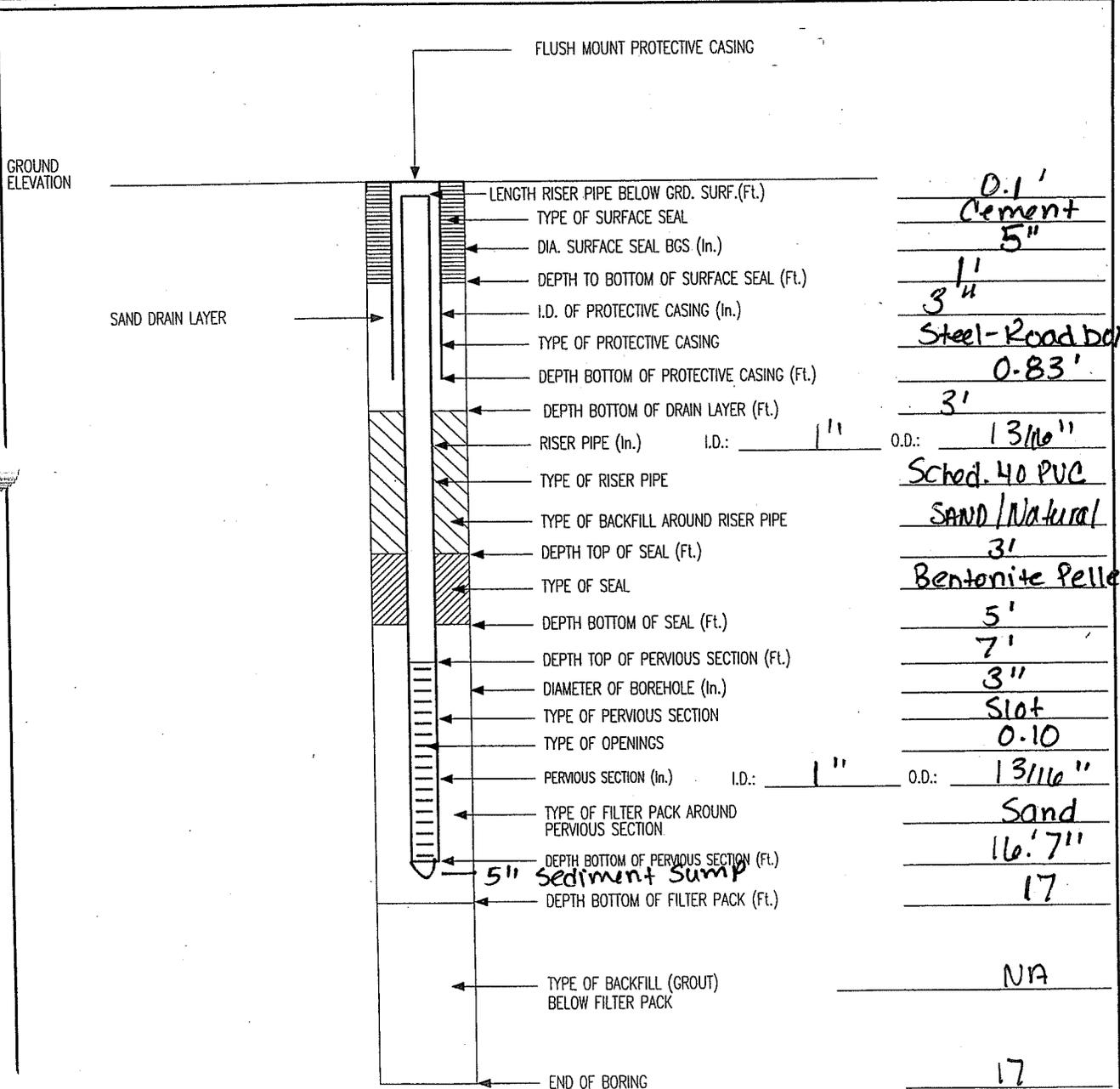
GENERAL NOTE:

1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>G-3</u>
CLIENT: <u>US EPA</u>	BORING NO: <u>G-3</u>
CONTRACTOR: <u>American Drilling Johnson Comdantv. INC</u>	DRILLER: <u>R. Dean</u>
LOGGED BY: <u>J. Danieli</u>	DATE: <u>11 29 10 2</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>Front Parking Lot of Atlantic Fixture - off of Mishawum Rd.</u>	
PAGE: 1 OF 1	



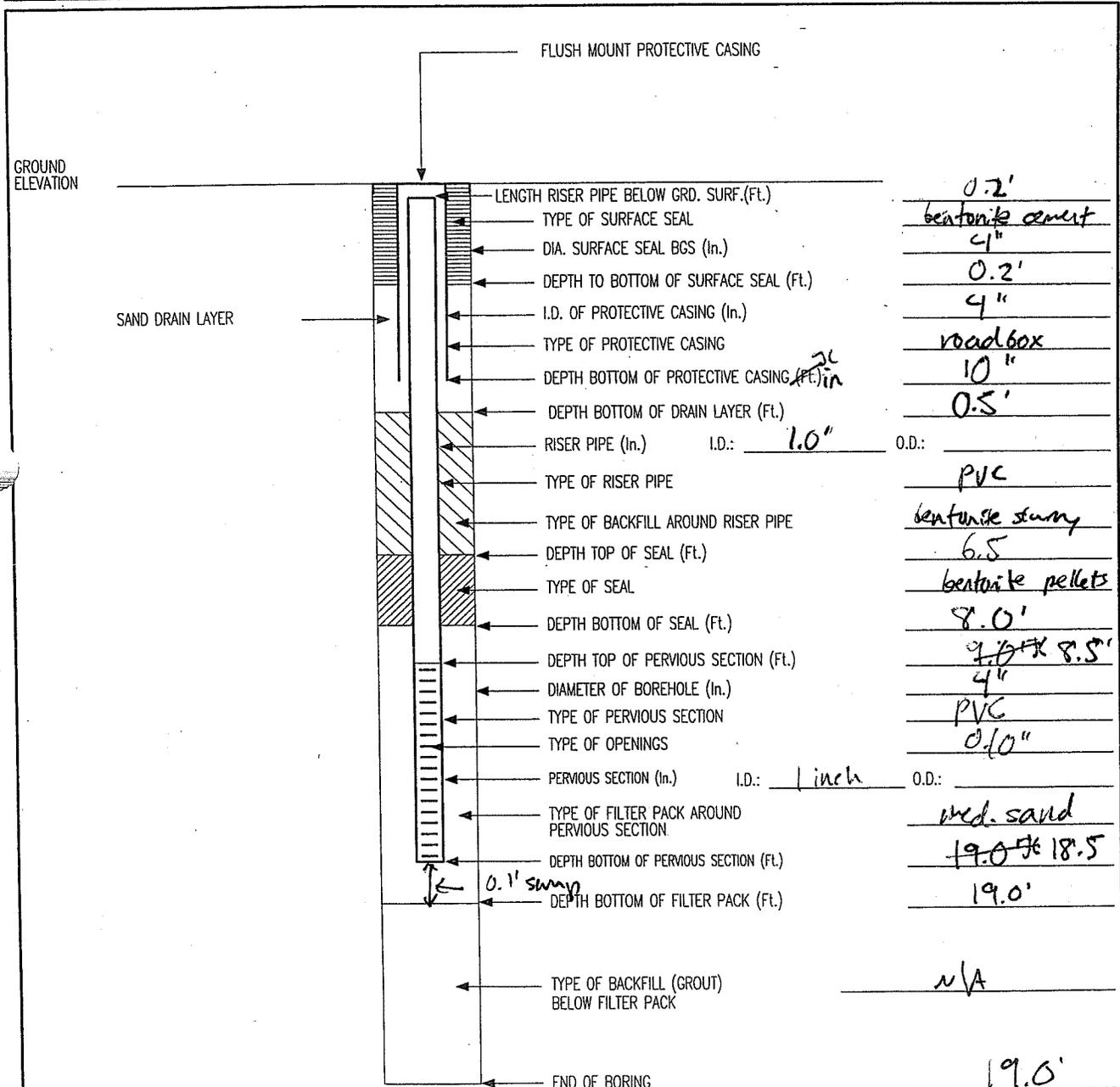
GENERAL NOTE:

1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>P-1</u>
CLIENT: <u>US EPA</u>	BORING NO: _____
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: _____
LOGGED BY: <u>J. Lambert</u>	DATE: <u>1/23/02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: _____	
PAGE: 1 OF 1	



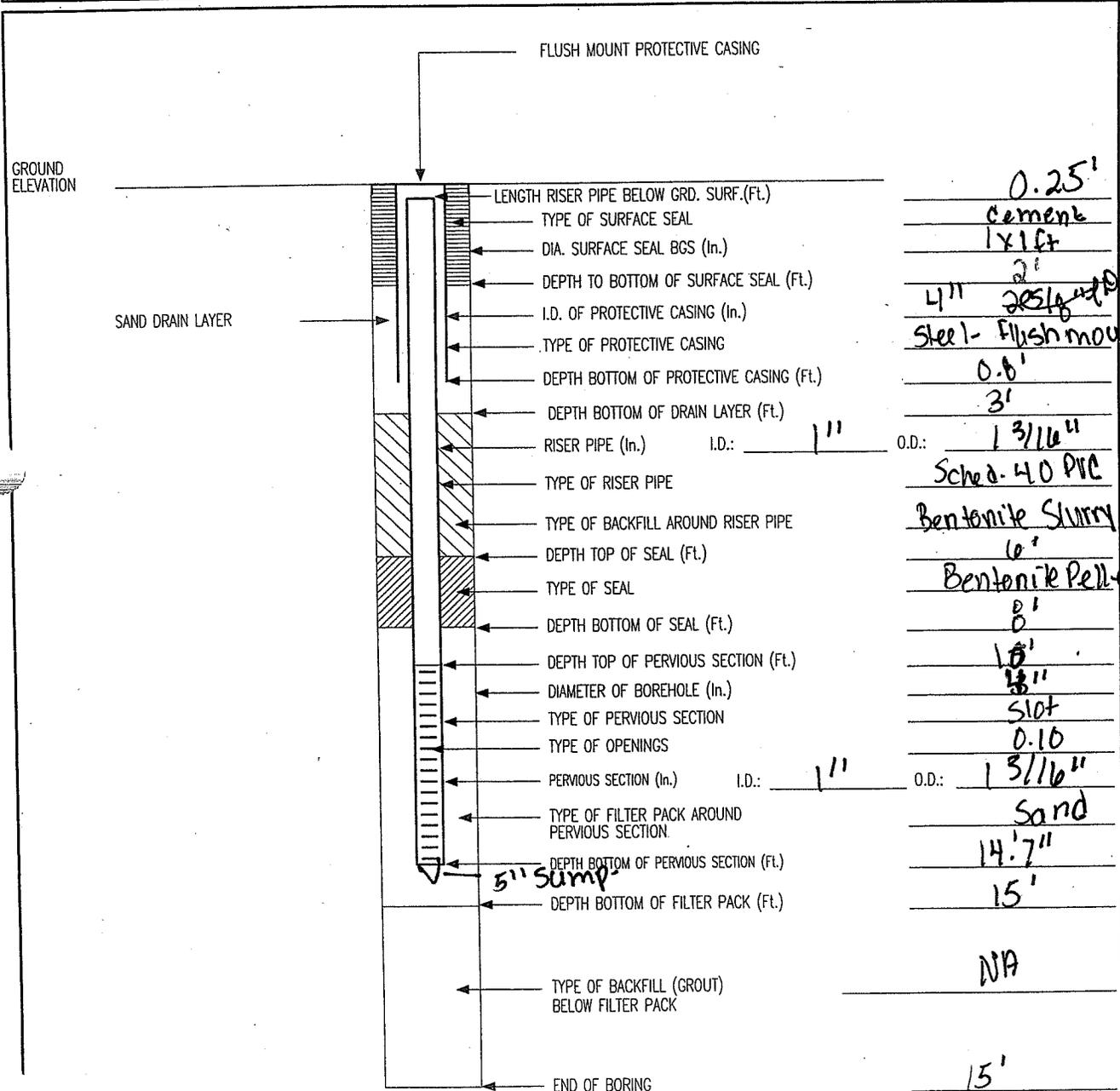
GENERAL NOTE:

1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>P-2</u>
CLIENT: <u>US EPA</u>	BORING NO: _____
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>R. Dean</u>
LOGGED BY: <u>J. Daniels</u>	DATE: <u>11/24/02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>Exit Rd - out of Transportation Center</u>	
PAGE: 1 OF 1	



LENGTH RISER PIPE BELOW GRD. SURF.(Ft.)	0.25'
TYPE OF SURFACE SEAL	Cement
DIA. SURFACE SEAL BGS (In.)	1 x 1 ft
DEPTH TO BOTTOM OF SURFACE SEAL (Ft.)	2'
I.D. OF PROTECTIVE CASING (In.)	4" 205/16 (11/24)
TYPE OF PROTECTIVE CASING	Steel - Flush mount
DEPTH BOTTOM OF PROTECTIVE CASING (Ft.)	0.0'
DEPTH BOTTOM OF DRAIN LAYER (Ft.)	3'
RISER PIPE (In.) I.D.:	1" O.D.: 1 3/16"
TYPE OF RISER PIPE	Sched. 40 Pvc
TYPE OF BACKFILL AROUND RISER PIPE	Bentonite Slurry
DEPTH TOP OF SEAL (Ft.)	6'
TYPE OF SEAL	Bentonite Pellets
DEPTH BOTTOM OF SEAL (Ft.)	8'
DEPTH TOP OF PERVIOUS SECTION (Ft.)	10'
DIAMETER OF BOREHOLE (In.)	13"
TYPE OF PERVIOUS SECTION	Slot
TYPE OF OPENINGS	0.10
PERVIOUS SECTION (In.) I.D.:	1" O.D.: 1 3/16"
TYPE OF FILTER PACK AROUND PERVIOUS SECTION	Sand
DEPTH BOTTOM OF PERVIOUS SECTION (Ft.)	14.7"
DEPTH BOTTOM OF FILTER PACK (Ft.)	15'
TYPE OF BACKFILL (GROUT) BELOW FILTER PACK	NA
END OF BORING	15'

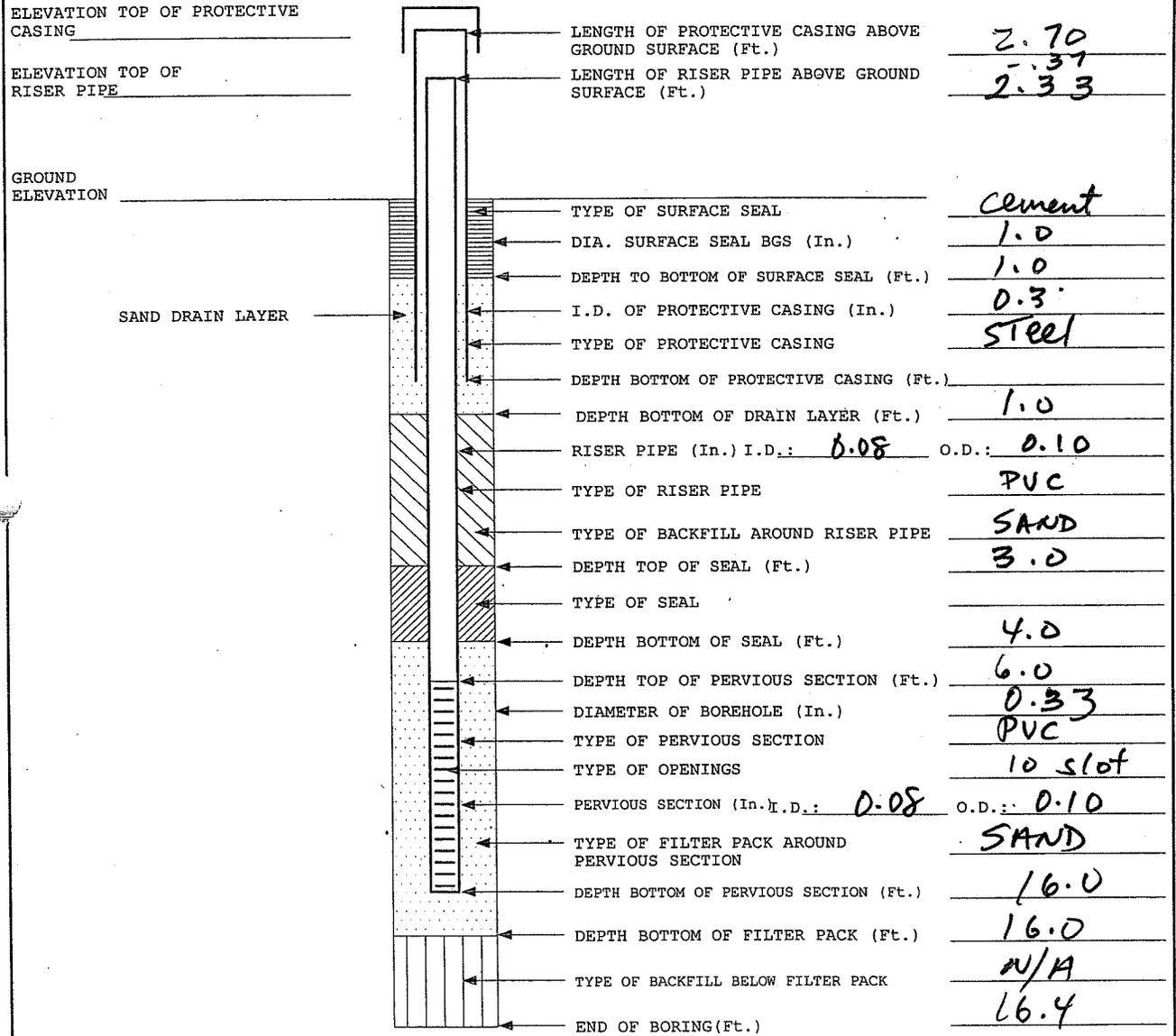
GENERAL NOTE:

1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

OVERBURDEN MONITORING WELL CONSTRUCTION LOG

TETRA TECH NUS, INC.

PROJECT NAME: <u>Industri-Plex</u>	PROJECT NO: <u>N4123-0324</u>
PROJECT LOCATION: <u>Woburn, MA.</u>	WELL NO: <u>P-3</u>
CLIENT: <u>US-EPA</u>	BORING NO: _____
CONTRACTOR: <u>Johnson Company, INC</u>	DRILLER: <u>Chris</u>
LOGGED BY: <u>K. O'Neill</u>	DATE: <u>1-25-02</u>
CHECKED BY: _____	DATE: _____
BORING LOCATION: <u>North side Access Rd / TDV build road</u>	
PAGE: 1 OF 1	



GENERAL NOTE :

1. Entry of 0.00 for Ground Elevation, Elev. Top of Riser Pipe & Elev. Top of Protective Casing Indicates that Surveyed Ground Elevation Not Available.