

September 3, 2008

Young S. Chang USEPA – Region 2 290 Broadway New York, NY 10007-1866



Re: Sidney Landfill

Monitoring Well Decommissioning

Work Summary

Dear Young:

The following provides a summary of the work efforts completed for the ground water monitoring well decommissioning program at the Sidney Landfill.

A total of 16 monitoring wells were abandoned at the Sidney Landfill between May 19 and May 30, 2008 consistent with the work plan provided in a our dated April 4, 2008 and USEPA's comments to the work plan both of which are provided in Attachment 1. The table below provides a summary of the decommissioned wells. Well abandonment logs are provided in Attachment 2. Figures 1 and 2 depict the locations of the ground water monitoring wells at the site prior and subsequent to well decommissioning, respectively.

Sidney Landfill
Summary of Decommissioned Monitoring Wells

	Well Depth	Well Diameter	Inside Casing
WELL ID	(ft)	(in)	Material
UNK-3	43	4.0	SS
B2	44	2.0	PVC
В3	42	2.0	PVC
B4	73	2.0	PVC
B5	63	2.0	PVC
B6	52	2.0	PVC
B7	73	2.0	PVC
MW-4S	38	2.0	SS
MW-4D	76	4.0	SS
MW-5S	55	4.0	SS
MW-5D	83	4.0	SS
MW-20	53	4.0	SS
MW-21	41	2.0	SS
MW-22	90	4.0	SS
MW-24	150	4.0	SS
MW-25	161	4.0	SS

Well depth was confirmed with a weighted tape prior to well abandonment. Grout slurry was then prepared using Portland cement, bentonite powder and potable water from the Village of Sidney. The grout was pumped into the well via a PVC tremie pipe installed to the well bottom. The tremie pipe was slowly withdrawn as grout filled the well. An 8.25 inch hollow-stem auger bit was then advanced around the outside of the protective well casing to a depth of approximately 5 feet below ground surface. The well and its protective casing were cut off using an oxygen-acetylene torch a minimum of 3 feet below ground surface. Grout was allowed to cure at least 24-hours, at which time any shrinkage or collapse of the grout column (typically 1 to 2 feet) was noted. If necessary, additional grout was added to completely fill the well. Lastly, a steel placed on top of the grouted well. As directed by USEPA in their comments to the work plan, at well B-6, bentonite pellets were used to fill the casing to 3 feet below ground surface. At all locations, the hole at the surface left by the removal of the protective well casing and pad was filled with soil from an off-site source. The disturbed work area was seeded and mulched upon completion.

If any questions arise regarding this information, please do not hesitate to contact us.

Very truly yours,

JTM ASSOCIATES, LLC

James T. Mickam, P.G.

President

Attachments

Cc: R. Galloway – Honeywell

J. Bianchi – Amphenol

S. Waldo – Amphenol

G. Pratt – NYSDEC

J. Kaczor – Earth Tech

FIGURES

FIGURE 1

SIDNEY LANDFILL **ENVIRONMENTAL** MONITORING PROGRAM



MONITORING WELL LOCATION MAP APRIL 2008 PRE - WELL DECOMMISSIONING **PROGRAM**

LEGEND

BEDROCK MONITORING WELL

♦ MW-45 BEDROCK MONITORING WELL TO BE DECOMMISSIONED GLACIAL TILL MONITORING WELL

GAS VENT LOCATION

SURFACE WATER SAMPLE LOCATION

RECOVERY WELL SPRING

TREE LINE

- SIDNEY LANDFILL PROPERTY BOUNDARY

------ WASTE LIMITS

- 1. TOPOGRAPHIC SURVEY FROM MALCOLM PIRNIE; JANUARY 1995.
- 2. ADAPTED FROM MAPS AND ILLUSTRATIONS PREPARED BY HARDING ESE.





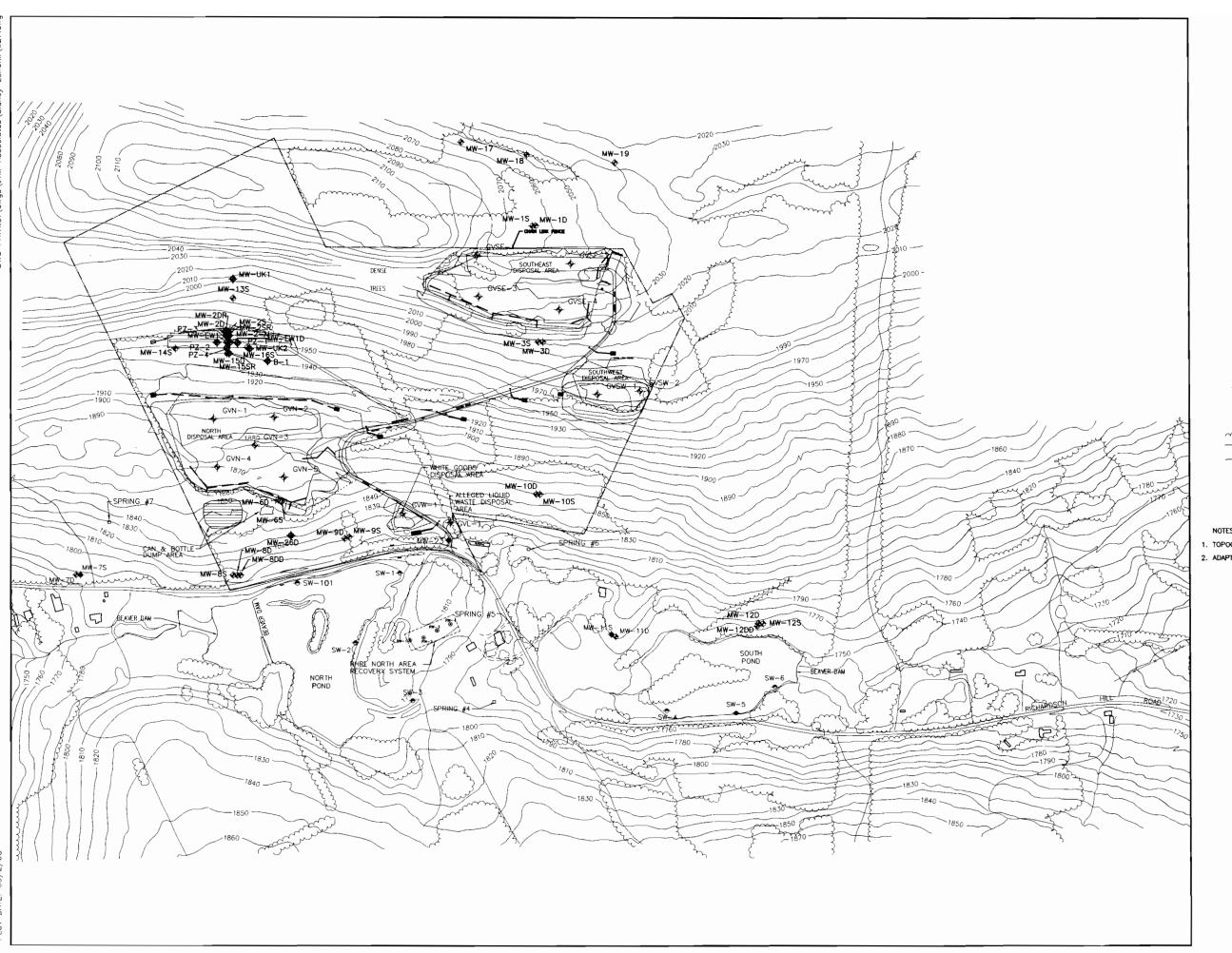


FIGURE 2

SIDNEY LANDFILL **ENVIRONMENTAL** MONITORING **PROGRAM**



MONITORING WELL LOCATION MAP JUNE 2008 POST - WELL DECOMMISSIONING **PROGRAM**

- BEDROCK MONITORING WELL
- GLACIAL TILL MONITORING WELL
- GAS VENT LOCATION
- SURFACE WATER SAMPLE LOCATION RECOVERY WELL
- SPRING
- TREE LINE
- SIDNEY LANDFILL PROPERTY BOUNDARY
 - WASTE LIMITS

- 1. TOPOGRAPHIC SURVEY FROM MALCOLM PIRNIE; JANUARY 1995.
- 2. ADAPTED FROM MAPS AND ILLUSTRATIONS PREPARED BY HARDING ESE.



Attachment 1



April 4, 2008

Young S. Chang USEPA - Region 2 290 Broadway New York, NY 10007-1866

Re: Sidney Landfill

Monitoring well decommissioning

Dear Young:

As requested by USEPA, the respondents will decommission several ground water monitoring wells at the Sidney Landfill. This letter defines the specific wells proposed for decommissioning and method of abandonment.

Decommissioning program scope

Throughout its' history, several investigations involving the installation of ground water monitoring wells have been completed at the Sidney Landfill. Presently, 54 ground water monitoring wells exist on and around the site, Of these, 19 are monitored as part of the current USEPA environmental monitoring and New York State Department of Environmental Conservation (NYSDEC) Part 360 ground water monitoring programs.

USEPA has requested that 9 wells be decommissioned. The Respondents propose to decommission a total of 35 ground water monitoring wells or all of those wells not currently in either ground water monitoring program. The attached table summarizes those wells proposed for decommissioning, their general construction (open bedrock hole or screened), diameter and depth. The provided figure depicts their location.

Decommissioning method

The method of well decommissioning will be consistent with the NYSDEC Draft Groundwater Monitoring Well Decommissioning Procedures; November 2002.

Available drilling logs indicate all wells proposed for decommissioning are completed in bedrock. At those locations where specific logs are not available (UKN-1, UKN-2 and UKN-3), logs for wells immediately adjacent to these wells indicate that this is also the case for the UKN wells. All wells are constructed with 4 to 6 inch steel casing grouted into bedrock. At a majority of locations, the well is completed as an open bedrock hole. At the "PZ" and "B" series wells, a 2 inch PVC screen and casing assembly is grouted inside the larger diameter steel casing.

Ms. Young Chang April 4, 2008 Page 2 of 2

All wells will be decommissioned by a combination over-drilling and grouting in-place as described in sections 2.2 and 2.3 in the guidance document, respectively. The well will first be tremie grouted in-place to 5 feet below grade. The grout mixture will be consistent with that specified in section 9.1.1 of the guidance. Following a 12-hour grout curing period, the grout column inside the well casing will be inspected and additional grout added if necessary to bring it to 5 feet below grade. After complete grouting, the steel casing will be over-drilled to 5 feet below grade using hollow-stem augers. The casing will then be cut off using a long handled torch and removed. Any remaining well surface pad will also be removed. A steel marker plate will be embedded and the soil over the well location restored and seeded as per section 10 of the guidance.

Schedule

Our contractor, Parratt-Wolff, is scheduled to mobilize and begin work Monday, May 5, 2008. However, this schedule may be revised depending on field conditions as wheeled vehicle access is required to perform the work.

If any questions arise regarding this information, please do not hesitate to contact us.

Very truly yours,

JTM Associates, LLC

James T. Mickam, P.G.

President

Attachments

- Table of wells proposed for decommissioning
- Well Location Map

Cc: R. Galloway - Honeywell

- J. Bianchi Amphenol
- S. Waldo Amphenol
- G. Pratt NYSDEC
- J. Kaczor Earth Tech

Attachments

- Table of Monitoring Wells Proposed for Decommissioning
- Monitoring Well Location Map

Sidney Landfill Monitoring Wells Proposed for Decommissioning

WELL ID	Open Hole / Screened	DIAM (in)	DEPTH
MW-2S	0	4	70
MW-2DR	S	2	154
MW-2SR	0	4	71
MW-2M	0	4	85
MW-4S	0	4	36
MW-4D	0	4	78
MW-5S	0	4	55
MW-5D	0	4	83
MW-7S	0	4	21
MW-7D	0	4	41
MW-11S	0	4	26
MW-11D	0	4	50
MW-15S	0	4	72
MW-15SR	0	4	74
MW-20	0	4	54
MW-21	0	4	41
MW-22	0	4	90
MW-24	0	4	150
MW-25	0	4	160
PZ-1	S	2	70
PZ-2	S	2	59
PZ-3	S	2	75
PZ-4	S	2	70
EW-1	S	6	80
EW-1D	S	6	120
B-1	0	2	43
B-2	0	2	44
B-3	0	2	43
B-4	0	2	77
B-5	0	2	63
B-6	0	2	52
B-7	0	2	74
MW-UK1 (near 13S)	?	4	77
MW-UK2 (near 16S)	?	4	80
MW-UK3 (near 8D)	?	4	43

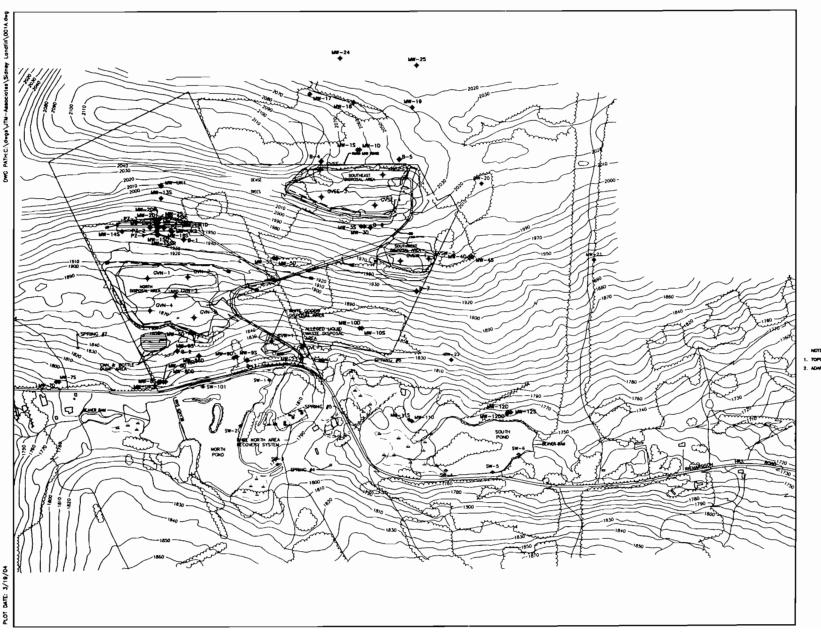


FIGURE 1

SIDNEY LANDFILL ENVIRONMENTAL MONITORING PROGRAM



SITE MAP

- LEGEND
- GAS VENT LOCATION
- SURFACE MATER SAMPLE LOCATION
- RECOVERY WELL
- TREE UNE
- WASTE LANTS



office

From:

<Chang.Young@epamail.epa.gov>

To:

"James T. Mickam, P.G." < imickam@itmllc.com>

Cc:

<Modica.Edward@epamail.epa.gov>; <ghpratt@gw.dec.state.ny.us>; "Kaczor, James" <James.Kaczor@earthtech.com>; "Bianchi, Joseph M." <jbianchi@amphenol-aao.com>; "Galloway, Rich" <rich.galloway@honeywell.com>; "Waldo, Samuel S." <waldo@amphenol.com>

Sent:

Tuesday, August 05, 2008 11:45 AM

Subject:

Re: Fw: Sidney Landfill Well Decommissioning, wells which are approved vs. not approved and

request change in date for decommissioning start.

Jim.

You had recently (7/29/08) responded to my email and stated that the well decommissioning was completed as per the work plan. Please submit via US Mail or e-Mail well decommissioning documentation report/letter by September 5, 2008. Include in the report/letter, summary of activities, list of wells decommissioned, a figure depicting all wells on Sidney Landfill site prior to decommissioning, and a figure depicting remainder of wells on Sidney Landfill site post decommissioning.

Young Chang Project Manager US EPA Region 2 290 Broadway, 20th Floor New York, NY 10007 212-637-4253 212-637-3966 fax

Young

Chang/R2/USEPA/U

To

"James T. Mickam, P.G."

04/17/2008 09:26

<jmickam@jtmllc.com>

AM

cc

"Kaczor, James"

<James.Kaczor@earthtech.com>,

"Bianchi, Joseph M."

<jbianchi@amphenol-aao.com>,

"Galloway, Rich"

<rich.galloway@honeywell.com>,

"Waldo, Samuel S."

<waldo@amphenol.com>,

ghpratt@gw.dec.state.ny.us, Tamara.Raby@earthtech.com, Edward

Modica/R2/USEPA/US@EPA

Subject

Re: Fw: Sidney Landfill Well

Decommissioning, wells which are approved vs. not approved and request change in date for decommissioning start.(Document link: Young Chang)

Thank you.

To recap, May 12 week, quarterly monitoring will start. May 19th week, well decommission will start as long as quarterly monitoring has been completed.

Following wells are approved for decommissioning:

- >> MW-4S, MW-4D
- >> MW-5S, MW-5D
 - >> MW-20,
 - >> MW-21,
 - >> MW-22,
 - >> MW-24,
 - >> MW-25,
- >> B-2 through B-7,
 - >> and MW-UK3 (near 8D).
- And special instruction for decommissiong well B-6 is given below and has been accepted by the PRPs representative.
- _ Thanks.
- Young Chang
 Project Manager
 US EPA Region 2
 290 Broadway, 20th Floor
 New York, NY 10007
 212-637-4253
 212-637-3966 fax

"James T.

Mickam, P.G."

<jmickam@jtmllc.

To

com>
Young Chang/R2/USEPA/US@EPA

04/17/2008 09:09 "Waldo, Samuel S." AM <waldo@amphenol.com>, "Kaczor, James" <James.Kaczor@earthtech.com>, "Galloway, Rich" <rich.galloway@honeywell.com>, "Bianchi, Joseph M." <jbianchi@amphenol-aao.com> Subject Fw: Sidney Landfill Well Decommissioning, wells which are approved vs. not approved and request change in date for decommissioning start. Young, We can now confirm the May 19 start date. Jim ---- Original Message -----From: "James T. Mickam, P.G." < imickam@jtmllc.com> To: <Chang. Young@epamail.epa.gov> Cc: "Pratt, Gerald" < ghpratt@gw.dec.state.ny.us; "Kaczor, James" <James.Kaczor@earthtech.com>; "Bianchi, Joseph M." <ibianchi@amphenol-aao.com>; "Galloway, Rich" <rich.galloway@honeywell.com>; "Waldo, Samuel S." <waldo@amphenol.com>; <Singerman.Joel@epamail.epa.gov>; < Modica. Edward@epamail.epa.gov> Sent: Wednesday, April 16, 2008 4:00 PM Subject: Re: Sidney Landfill Well Decommissioning, wells which are approved vs. not approved and request change in date for decommissioning start. > Young, > We are in receipt of EPA's comments re: the proposed monitoring well > decommissioning at the Sidney Landfill. We accept EPA's revised list of > wells to be closed. Additionally, we will use the alternative > procedure suggested by Earth Tech. We are in the process of confirming a

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> start date of May 19 (the week after the scheduled 2nd quarter
monitoring
> event) with our contractor.
> Thanks you,
> Jim
> ---- Original Message -----
> From: <Chang. Young@epamail.epa.gov>
> To: "James T. Mickam, P.G." < imickam@jtmllc.com>
> Cc: "Pratt, Gerald" < <a href="mailto:ghpratt@gw.dec.state.ny.us">ghpratt@gw.dec.state.ny.us</a>; "Kaczor, James"
> < James. Kaczor@earthtech.com>; "Bianchi, Joseph M."
> < <u>ibianchi@amphenol-aao.com</u>>; "Galloway, Rich"
> <rich.galloway@honeywell.com>;
> "Waldo, Samuel S." < waldo@amphenol.com>;
<Singerman.Joel@epamail.epa.gov>;
> < Modica. Edward@epamail.epa.gov>
> Sent: Thursday, April 10, 2008 3:26 PM
> Subject: Re: Sidney Landfill Well Decommissioning, wells which are
> approved
> vs. not approved and request change in date for decommissioning start.
>
>> Jim,
>>
>> EPA, DEC, and Earth Tech have reviewed the attached letter
identifying
>> the wells proposed for decommissioning.
>>
>> Following wells are approved for decommissioning:
>> MW-4S, MW-4D
>> MW-5S, MW-5D
>> MW-20,
>> MW-21,
>> MW-22.
>> MW-24,
>> MW-25,
>> B-2 through B-7,
>> and MW-UK3 (near 8D).
>>
>> For decommissioning well B-6: Earth Tech wrote and EPA agrees.
"Wells
>> MW-3S and MW-3D are topographically located at the same elevation as
>> well B-6. Although the screened interval of well B-6 is essentially
the
>> same as well MW-3S, the wells are located ~25 feet away and
therefore.
>> the abandonment of B-6 is not likely to affect the integrity of MW-3S
>> (nor MW-3D), however a bentonite abandonment procedure should/could
be
>> requested to ensure that no effects occur.
>>
>> Abandonment procedures, special consideration for B-6:
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- >> Potential effects of using a cement/bentonite grout mixture during well
- >> abandonment activities includes the risk of grout intrusion into nearby
 - >> wells, thus making the geochemistry unstable for a short period of time
- >> (depending on nature and extent of intrusion). A second potential effect
 - >> is the sealing of water-bearing fractures in the immediate vicinity of a
 - >> nearby well, thus causing a decreased well yield. To minimize these
 - >> risks, bentonite chips can be used rather than cement/bentonite grout.
 - >> Additional benefits of using bentonite chips is to ensure that highly
 - >> transmissive fractures with strong vertical gradients do not wash
- away
 - >> the cement/bentonite grout prior to it curing, leaving pathways open for
- >> vertical movement of site contaminants."
- >>
 - >> EPA requests that well decommissioning commence after the May 12th
- week
 - >> quarterly groundwater monitoring has been completed. So please
 - >> reschedule Parratt-Wolff.
- _ >>
 - >> All the wells near the former MW-2S "Hotspot" area proposed for
 - >> decommissioning are denied. EPA has wanted MW-2S area monitoring
- >> however it has been mostly dry or had insufficient yield for sampling.
 - >> EPA wants to maintain these wells for future monitoring purposes.
- _ Some
 - >> of the wells which EPA does not have plans for the future, such as
 - >> MW-UK1, MW-UK2, B-1, MW-2S, and MW-15S, however we do not want these
- >> wells decommissioned due to concerns detailed above, regarding
 - >> considerations for B-6. We can re-evaluate these wells in the former
 - >> MW-2S "Hotspot" area during the next 5-year review, after 2009.
- - >> MW-7S, MW-7D, MW-11S, and MW-11D should not be decommissioned as these
- >> are fringe wells located close to residences which are not contaminated.
 - >> We may want periodic monitoring in the future to confirm that it is
 - >> still not contaminated.
- _ >>
 - >> Note that on figure 1, there were two MW-UK1. The second MW-UK1 near
- >> MW-8S should be changed on the figure to MW-UK3, according to the table.
- >>
 - >> Please respond to this email to confirm receipt and understanding.

And

>> provide us with the new schedule. Thanks.

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>>
>> Young Chang
>> Project Manager
>> US EPA Region 2
>> 290 Broadway, 20th Floor
>> New York, NY 10007
>> 212-637-4253
>> 212-637-3966 fax
>>
>>
>>
>>
          "James T.
>>
>>
          Mickam, P.G."
>>
          <jmickam@jtmllc.</pre>
To
>>
                           Young Chang/R2/USEPA/US@EPA
          com>
>>
cc
                               "Waldo, Samuel S."
          04/06/2008 02:20
>>
          PM
                           <waldo@amphenol.com>, "Pratt,
>>
                        Gerald"
>>
                        <ghpratt@gw.dec.state.ny.us>,
>>
                        "Kaczor, James"
>>
                        <James.Kaczor@earthtech.com>,
>>
                        "Galloway, Rich"
>>
                        <<u>rich.galloway@honeywell.com</u>>,
>>
                        "Bianchi, Joseph M."
>>
                        <jbianchi@amphenol-aao.com>
>>
>>
Subject
                        Sidney Landfill Well
>>
                        Decommissioning
>>
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>>
>>
>> Young,
>> Attached please find the proposed plan for monitoring well
>> decommissioning at the Sidney Landfill. We are hopeful that the
>> conditions allow the program to begin on Monday, May 5th.
>> Regards,
>> Jim
>>
```

>> James T. Mickam, PG
>> JTM Associates, LLC
>> 290 Elwood Davis Road; Ste. 290
>> Liverpool, NY 13088
>> P 315.641.1216
>> jmickam@jtmllc.com[attachment "Sidney Well Decommiss Plan.pdf" deleted
>> by Young Chang/R2/USEPA/US]
>>

Attachment 2



5879 Fisher Road East Syracuse, NY 13057

PROJECT Former Sidney Landfill

LOCATION Sidney, New York

GROUNDWATER DEPTH WHILE DRILLING

BEFORE CASING

REMOVED

AFTER CASING

CASING TYPE

REMOVED

WELL ABANDONMENT

HOLE NO.

MW-4S

JOB NUMBER: 08054A

SURF. EL.

DATE STARTED: DATE COMPLETED:

05/21/08 05/21/08

N - NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER

FALLING 30" - ASTM D-1586 STANDARD PENETRATION TEST

C - NO. OF BLOWS TO DRIVE CASING 12" W/ FALLING "/ OR PERCENT CORE RECOVERY # HAMMER

1 OF 1 SHEET

- DEPTH	SAMPLE DEPTH	SAMPLE NO.	Rec	REC	IVE	N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
-							Taped hole at 38.0' BGS Well was triple cased 6" BIP, 4"SS and 2"SS Tremie grouted well 7 gallons of water	
-							5 lbs of bentonite powder 47 lbs Portland cement Used backhoe, dug down 3.0'	
-						_	Cut 6" BIP, 4"SS and 2" SS 3.0' below grade Removed casing and risers, put piece of steel	in hole
-								
-								
-								
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5879 Fisher Road East Syracuse, NY 13057

PROJECT Former Sidney Landfill

WELL ABANDONMENT

LOCATION Sidney, New York

GROUNDWATER DEPTH

HOLE NO.

MW-4D

JOB NUMBER:

08054A

SURF. EL.

DATE STARTED:

05/21/08

DATE COMPLETED: 05/21/08

 BEFORE CASING REMOVED

WHILE DRILLING

N - NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" - ASTM D-1586 STANDARD PENETRATION TEST

AFTER CASING

CASING TYPE

C - NO. OF BLOWS TO DRIVE CASING 12" W/

HAMMER

REMOVED

FALLING "/ OR PERCENT CORE RECOVERY

SHEET

1 OF 1

DEPTH	SAMPLE DEPTH	SAMPLE NO.	Rec	SAM DRI REC	VE ORD	N	DESCRIPTION OF MATERIAL CHAN	GE
				I			Taped hole at 76.0' BGS	
							Well was built with 6" BIP and 4" SS	
							Tremie grouted	
						<u></u>	35 gallons of water	
							47 lbs bentonite powder	
						<u> </u>	500 lbs of Portland cement	
							Hole ate all of the grout	
		-					Installed 100 lbs bentonite chips.	
		ļ				├	Re-raped hole, bentonite chips at at 43.0'	
		ļ					Mixed grout 28.0 gallons of water	
							25 lbs powdered bentonite, 400 lbs of portland cement, grouted to surface.	
		ļ				 	Used backhoe, dug down 3.0'	
						╁	Cut off 6" BIP & 4"ss off at 3.0'	
		ļ				+	Removed casing and riser, left piece of steel in hole	
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5879 Fisher Road East Syracuse, NY 13057

PROJECT Former Sidney Landfill

LOCATION Sidney, New York

GROUNDWATER DEPTH WHILE DRILLING

BEFORE CASING

AFTER CASING

REMOVED

REMOVED CASING TYPE

WELL ABANDONMENT

HOLE NO. MW-5S

JOB NUMBER: 08054A

SURF. EL.

DATE STARTED: 05/21/08

DATE COMPLETED: 05/21/08

N - NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" - ASTM D-1586 STANDARD PENETRATION TEST

C - NO. OF BLOWS TO DRIVE CASING 12" WI FALLING "/ OR PERCENT CORE RECOVERY

HAMMER

						IPLE IVE			STRATA
	OFDI		SAMPLE	D	REC	ORD	.,	DESCRIPTION OF MATERIAL	CHANGE
-	DEPTH	DEPTH	NO.	Rec	PER	₹ 6"	N	Toward halo at 55 N PCS	DEPTH
								Taped hole at 55.0' BGS	
								Well was double cased - 6" BIP and 4" SS	
								Tremie grouted hole	
								21 gallons water	
1								15 lbs bentonite powder	i
-								300 lbs of portland cement	
1								Used backhoe, dug down 3.0'	
								Cut 6" BIP & 4" SS casing off 3.0'	
								Removed casing and riser, left piece of steel i	n hole
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5879 Fisher Road
East Syracuse, NY 13057

PROJECT Former Sidney Landfill

LOCATION Sidney, New York

GROUNDWATER DEPTH

WHILE DRILLING

BEFORE CASING

AFTER CASING

 BEFORE CASING REMOVED

REMOVED
CASING TYPE W

WELL ABANDONMENT

HOLE NO.

MW-5D

JOB NUMBER:

08054A

SURF. EL.

DATE STARTED: DATE COMPLETED: 05/21/08 05/21/08

/E O A MEDI ED 400 NA //4 40 // / / A A A A

N - NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" - ASTM D-1586 STANDARD PENETRATION TEST

C - NO. OF BLOWS TO DRIVE CASING 12" W/ FALLING "/ OR PERCENT CORE RECOVERY

HAMMER

_	DEPTH	SAMPLE DEPTH	SAMPLE NO.	Rec	DR REC	IPLE IVE ORD R 6"	N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
_						_		Taped hole at 83.0' BGS Well was double cased - 6" BIP and 4" SS	
-								Tremie grouted hole 42 gallons water 30 lbs of bentonite powder	
-								600 lbs portland cement Used backhoe, dug down 3.0' Cut 6 BIP & 4"ss off at 3.0'	
-								Removed casing and riser, left piece of steel in	hole
-									
-									
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_				,					
_ (
-									
-									
			-						



5879 Fisher Road East Syracuse, NY 13057

PROJECT Former Sidney Landfill

LOCATION Sidney, New York

GROUNDWATER DEPTH

WHILE DRILLING

BEFORE CASING **REMOVED**

HOLE NO. MW-20 JOB NUMBER: 08054A

SURF. EL.

DATE STARTED: 05/21/08

DATE COMPLETED:

05/21/08

N - NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" - ASTM D-1586 STANDARD PENETRATION TEST

C - NO. OF BLOWS TO DRIVE CASING 12" W/ "/ OR PERCENT CORE RECOVERY

AFTER CASING REMOVED CASING TYPE

WELL ABANDONMENT

DEPTH	SAMPLE DEPTH	SAMPLE NO.	Rec	SAMF DRI\ RECC PER	/E	N		STRATA CHANGE DEPTH
							Taped hole at 54.0' BGS	
							Well was double cased - 6" BIP and 4" SS	
							Tremie grouted hole	
							28 gallons water	
							25 lbs of bentonite powder 400 lbs portland cement	
							Used backhoe, dug down 3.0'	
							Cut 6" BIP and 4" SS 3.0' below grade	
							Removed casing and risers, put piece of steel in	n hole
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5879 Fisher Road East Syracuse, NY 13057

PROJECT Former Sidney Landfill

LOCATION Sidney, New York

GROUNDWATER DEPTH WHILE DRILLING

BEFORE CASING REMOVED

AFTER CASING

HOLE NO. MW-21 JOB NUMBER: 08054A

SURF. EL.

DATE STARTED: DATE COMPLETED:

05/23/08 05/23/08

N - NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" - ASTM D-1586 STANDARD PENETRATION TEST

C - NO. OF BLOWS TO DRIVE CASING 12" W/

"/ OR PERCENT CORE RECOVERY FALLING

REMOVED CASING TYPE WELL ABANDONMENT

DEPTH	SAMPLE DEPTH	SAMPLE NO.	Rec	DR REC	PLE IVE ORD R 6"	N	DESCRIPTION OF MATERIAL	STRATA CHANGI DEPTH
							Taped hole at 41.0' BGS	
							Well was double cased - 6" BIP and 4" SS	
						ļ <u>.</u>	Tremie grouted hole	
				<u>-</u>			21 gallons water	
							15 lbs of bentonite powder 300 lbs portland cement	
							Used backhoe, dug down 3.0'	
							Cut 6" BIP and 4" SS 3.0' below grade	
						\vdash	Removed casing and risers, put piece of steel	in hole
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5879 Fisher Road East Syracuse, NY 13057

PROJECT Former Sidney Landfill

LOCATION Sidney, New York

GROUNDWATER DEPTH WHILE DRILLING

BEFORE CASING **REMOVED**

AFTER CASING

REMOVED CASING TYPE WELL ARANDONMENT HOLE NO.

MW-22

JOB NUMBER:

08054A

SURF. EL.

DATE STARTED: DATE COMPLETED: 05/23/08 05/23/08

N - NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" - ASTM D-1586 STANDARD PENETRATION TEST

C - NO. OF BLOWS TO DRIVE CASING 12" W/

"/ OR PERCENT CORE RECOVERY FALLING

ASING TY	PE WELL	ABANDONMENT	 SHEET	1 OF 1

	DEPTH	SAMPLE DEPTH	SAMPLE NO.	Rec	SAM DRI REC PEF	IVE ORD	N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
_								Taped hole at 90' BGS Well was double cased - 6" BIP and 4" SS Tremie grout hole	
_								105 gallons water 75 lbs of bentonite 1500 lbs portland cement Used backhoe, dug down 3.0'	
								Cut 6" BIP and 4"SS 3.0' below grade Removed casing and risers, put piece of steel	in hole
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5879 Fisher Road East Syracuse, NY 13057

PROJECT Former Sidney Landfill

LOCATION Sidney, New York

GROUNDWATER DEPTH WHILE DRILLING

HOLE NO.

MW-24 08054A

JOB NUMBER:

SURF. EL. DATE STARTED:

05/23/08

DATE COMPLETED:

05/23/08

BEFORE CASING

REMOVED

N - NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" - ASTM D-1586 STANDARD PENETRATION TEST

C - NO. OF BLOWS TO DRIVE CASING 12" W/

AFTER CASING **REMOVED**

FALLING "/ OR PERCENT CORE RECOVERY

WELL ABANDONMENT CASING TYPE

DEPTH	SAMPLE DEPTH	SAMPLE NO.	Rec	SAM DR REC PEI	IVE ORD	N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
							Taped hole at 150' BGS	
							Well was double cased 6" BIP and 4" SS	
					*		Tremie grouted hole	
							70 gallons water	
							50 lbs of bentonite powder	
				,			1000 lbs of Portland cement	
						ļ	Used backhoe, dug down 3.0'	
							Cut 6" BIP and 4" SS 3.0' below grade	
						<u> </u>	Removed casing and risers, put piece of steel	in hole
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5879 Fisher Road East Syracuse, NY 13057

PROJECT Former Sidney Landfill

LOCATION Sidney, New York

GROUNDWATER DEPTH

WHILE DRILLING

BEFORE CASING REMOVED

> AFTER CASING **REMOVED**

HOLE NO.

MW-25

JOB NUMBER: 08054A

SURF, EL.

DATE STARTED:

05/23/08

DATE COMPLETED:

05/23/08

N - NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" - ASTM D-1586 STANDARD PENETRATION TEST

C - NO. OF BLOWS TO DRIVE CASING 12" W/

FALLING "/ OR PERCENT CORE RECOVERY

CASING TYPE WELL ABANDONMENT

	DEPTH	SAMPLE DEPTH	SAMPLE NO.	Rec	SAM DRI REC	IVE ORD	N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
Γ								Taped hole 161' BGS	
-								Well was double cased 6" BIP and 4" SS	
•								Tremmie grout hole	
							ļ,	77 gallons water	
-							-	55 lbs bentonite powder 1100 lbs of portland cement	
╸╽								Used backhoe, dug down 3.0'	
1								Cut 6" BIP and 4"SS 3.0' below grade	
							<u> </u>	Removed casing and risers, put piece of steel i	n hole
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PROJECT Former Sidney Landfill

LOCATION Sidney, New York

GROUNDWATER DEPTH

WHILE DRILLING

BEFORE CASING REMOVED

AFTER CASING

HOLE NO.

B-2 08054A

JOB NUMBER:

SURF. EL. DATE STARTED:

05/20/08

DATE COMPLETED:

05/20/08

N - NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" - ASTM D-1586 STANDARD PENETRATION TEST

C - NO. OF BLOWS TO DRIVE CASING 12" W/

REMOVED

FALLING "/ OR PERCENT CORE RECOVERY

CASING TYPE

WELL ABANDONMENT

DEPTH	SAMPLE DEPTH	SAMPLE NO.	Rec	SAM DRI RECO PER	VE ORD	N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
							Taped hole at 44' BGS	
							Well was 2" PVC	
							Tremmie grout hole	
							21 gallons of water	
							15 lbs of bentonite powder	
							300 lbs of portland cement	
							Removed 4" protective casing and concrete pa	d
							Drilled to 5.0' with 8.25" hollow stem auger	
							Cut 2" PVC 3.0' below grade	
							Put piece of steel in hole	
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5879 Fisher Road East Syracuse, NY 13057

B-3

08054A

05/19/08

05/19/08

HOLE NO.

SURF. EL.

JOB NUMBER:

DATE STARTED:

DATE COMPLETED:

PROJECT Former Sidney Landfill

LOCATION Sidney, New York

BEFORE CASING

AFTER CASING

REMOVED

REMOVED

GROUNDWATER DEPTH WHILE DRILLING

N - NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" - ASTM D-1586 STANDARD PENETRATION TEST

C - NO. OF BLOWS TO DRIVE CASING 12" W/ # HAMMER

FALLING "/ OR PERCENT CORE RECOVERY

CASING TYPE WELL ABANDONMENT SHEET 1 OF 1

DEPTH	SAMPLE DEPTH	SAMPLE NO.	Rec	SAM DRI RECO PER	VE ORD	N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
							Taped well at 42.0'	
							Well was 2" PVC	
							Tremmie grout hole	
							24 gallons of water	
							17 lbs of bentonite powder	
						ļ	350 lbs of portland cement	
							Removed 4" protective casing and concrete pa	1 a 1
		 				<u> </u>	Augered to 5.0' with 8 1/4" hollow stem augers	
						-	Cut 2" PVC 3.0' below grade	
							Placed piece of steel in hole	
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5879 Fisher Road East Syracuse, NY 13057

PROJECT Former Sidney Landfill

LOCATION Sidney, New York

GROUNDWATER DEPTH

WHILE DRILLING BEFORE CASING REMOVED

AFTER CASING

HOLE NO. JOB NUMBER: 08054A

SURF. EL.

DATE STARTED: 05/22/08

DATE COMPLETED:

N - NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER

B-4

05/22/08

HAMMER

FALLING 30" - ASTM D-1586 STANDARD PENETRATION TEST

C - NO. OF BLOWS TO DRIVE CASING 12" W/

FALLING "/ OR PERCENT CORE RECOVERY

REMOVED CASING TYPE **WELL ABANDONMENT**

_	DEPTH	SAMPLE DEPTH	SAMPLE NO.	Rec	SAM DRI REC PEF	VE	N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
								Taped well 73.0' 2" well	
_								Well was 2" PVC	
_		<u> </u>					-	Tremie grouted well	
								21 gallons water 15 lbs of powdered bentonite	
<u></u> ├							┾	300 lbs of portland cement	
_							 	Removed 4" protective casing and concrete page	Н
ı								Drilled to 5.0' with 8.25" hollow stem auger	•
_							+	Cut 2" PVC 3.0' below grade	
_								Put piece of steel in hole	
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5879 Fisher Road East Syracuse, NY 13057

B-5

08054A

05/21/08

05/21/08

HOLE NO.

SURF. EL.

JOB NUMBER:

DATE STARTED:

DATE COMPLETED:

PROJECT Former Sidney Landfill

LOCATION Sidney, New York

GROUNDWATER DEPTH WHILE DRILLING

■BEFORE CASING

REMOVED

REMOVED AFTER CASING N - NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" - ASTM D-1586 STANDARD PENETRATION TEST

C - NO. OF BLOWS TO DRIVE CASING 12" W/ FALLING "/ OR PERCENT CORE RECOVERY

CASING TYPE WELL ABANDONMENT SHEET 1 OF 1

DEPTH	SAMPLE DEPTH	SAMPLE NO.	Rec	SAM DRI REC PEF	VE ORD	N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
							Taped hole at 63' BGS Well was 2" PVC Tremie grouted well 21 gallons water 15 lbs of powdered bentonite 300 lbs of portland cement	
							Removed 4" protective casing and concrete pad Drilled to 5.0' with 8.25" hollow stem auger Cut 2" PVC 3.0' below grade Put piece of steel in hole	d



5879 Fisher Road East Syracuse, NY 13057

■ PROJECT Former Sidney Landfill

LOCATION Sidney, New York

GROUNDWATER DEPTH WHILE DRILLING

■ BEFORE CASING REMOVED

AFTER CASING REMOVED

CASING TYPE

TER CASING

WELL ABANDONMENT

HOLE NO.
JOB NUMBER:

B-6 08054A

SURF. EL.

DATE STARTED: 05/20/08

DATE COMPLETED:

05/20/08

N - NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" - ASTM D-1586 STANDARD PENETRATION TEST

C - NO. OF BLOWS TO DRIVE CASING 12" W/

HANNIED

FALLING "/ OR PERCENT CORE RECOVERY

	DEPTH	SAMPLE DEPTH	SAMPLE NO.	Rec	SAM DRI REC PER	VE ORD	N		STRATA CHANGE DEPTH
								Taped well at 52.0	
								Well was 2" PVC	
								Filled 2" PVC with 250 lbs of bentonite	
							-	Removed 4" protective casing and concrete pad	1
-		<u> </u>		·			 	Augered to 5.0' with 8 1/4" hollow stem augers Cut 2" PVC 3.0' below grade	
-								Placed piece of steel in hole	
								Traced piece of steer in nois	
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5879 Fisher Road East Syracuse, NY 13057

HOLE NO.

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08054A

PROJECT Former Sidney Landfill

LOCATION Sidney, New York

GROUNDWATER DEPTH WHILE DRILLING

BEFORE CASING REMOVED

AFTER CASING

REMOVED

SURF. EL. DATE STARTED:

05/20/08 DATE COMPLETED: 05/20/08

JOB NUMBER:

N - NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" - ASTM D-1586 STANDARD PENETRATION TEST

C - NO. OF BLOWS TO DRIVE CASING 12" W/ # HAMMER

"/ OR PERCENT CORE RECOVERY

CASING TYPE WELL ABANDONMENT SHEET 1 OF 1

DEPTH	SAMPLE DEPTH	SAMPLE NO.	Rec	DR REC	IPLE IVE ORD R 6"	N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
DC1 111	DEI III	110.	1,00			+ '	Taped well at 73' BGS	DEFIN
		-				-	Well was 2" PVC	
						-	Tremmie grout hole	
						├──	28 gallons water	
						-	20 lbs of bentonite powder	
							400 lbs of portland cement	
						_	Removed 4" protective casing and concrete page	•
			-	-		+	Overdrilled with 8 1/4" HSA to 5.0'	•
						+	Cut 2" PVC 3.0' below grade	
		 -				-	Grouted to surface	
						+	Place piece of steel in hole	
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5879 Fisher Road East Syracuse, NY 13057

PROJECT Former Sidney Landfill

LOCATION Sidney, New York

GROUNDWATER DEPTH

WHILE DRILLING

BEFORE CASING **REMOVED**

AFTER CASING

HOLE NO. MW-UK3 JOB NUMBER: 08054A

SURF, EL.

DATE STARTED:

05/20/08

DATE COMPLETED:

05/20/08

FALLING 30" - ASTM D-1586 STANDARD PENETRATION TEST

N - NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER

C - NO. OF BLOWS TO DRIVE CASING 12" W/ "/ OR PERCENT CORE RECOVERY

HAMMER

REMOVED CASING TYPE

WELL ABANDONMENT

DEPTH	SAMPLE DEPTH	SAMPLE NO.	Rec	SAM DRI REC PEF	VE ORD	N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
							Taped well at 43' BGS	
							Well was 4" SS	
							Tremie grouted well	
							35 gallons water	
							25 lbs of bentonite powder	
							500 lbs of Portland cement	
							Removed protective casing and concrete pad	
							Augered to 5.0' with 8 1/4" hollow stem augers	
							Cut PVC off at 3.0'	
							Placed piece of steel in hole	
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