US ERA ARCHIVE DOCUMENT

APPENDIX F PLUGGING AND ABANDONMENT PLANS

Detailed Plan of Procedure for Plugging and Abandoning Injection Wells at the Puna Geothermal Facility

Mlk 16Jun09

Assumptions:

- All four (4) injection wells would be abandoned at the same time. Work would be performed in series, one well at a time.
- Work would be accomplished utilizing a third party Drilling Rig (Water Resources, Inc.)

Procedure for each individual well:

- 1. Mobilize third party Rig to location, in parallel with site preparation.
- 2. Nipple up Blow Out Prevention Equipment.
- 3. If needed, kill well with plant water.
- 4. Pull and remove hangdown liner.
- 5. Pick up drill pipe and run in hole to set bottom plug.
- 6. Set plugs as per EPA Plugging and Abandonment Plan Form 7520-14.
- 7. Salvage surface equipment, primarily wellhead components.
- 8. Cut off casing.
- 9. Reclaim and restore location.
- 10. Move to next well.
- 11. Demobe Rig after completion of last well to be plugged and abandoned.

United States Environmental Protection Agency Washington, DC 20460 PLUGGING AND ABANDONMENT PLAN													
Name and Address of Facility Puna Geothermal Venture 14-3860 Kapoho Pahoa Road, Pahoa,	НІ 96778		P	Name and Address of Owner/Operator Puna Geothermal Venture PO Box 30, Pahoa, HI 96778									
Locate Well and Outline Unit on Section Plat - 640 Acres		State HI		a see and a see a se	County Hawaii	en e	Permit	Number	Book who are a second or a second of the control of				
N		r	Surface Location Description n/a 1/4 of n/a 1/4 of n/a 1/4 of n/a 1/4 of Section n/a Township n/a Range n/a										
	- 	Locate we Surface	Locate well in two directions from nearest lines of quarter section and drilling unit surface 8902.9 ft. N and 9919.0 ft E of Kaliu Location ft. frm (N/S) Line of quarter section										
w	✓ Area	vidual Perm a Permit	AUTHORIZATI	CLAS	WELL ACTIVITY ASS I ASS II Brine Disposal Enhanced Recovery								
	<u>† – </u>	Number	Programme of the control		mikaninanggariyanin ya sahayun ya san uran Ari kan	CLAS	Hydrocarbon Storage ASS V						
S		Lease Nar	me Kapoh	no State		Well Numl	per 1A						
CASING AND TUBING	3 RECORD AFTE	ER PLUGGING	G		METH	ACEMENT O	F CEMENT P	LUGS					
SIZE WT (LB/FT) TO BE PUT IN W	0-13	376						Bailer Method					
9 5/8 47	0-22			12/1/4	~~~ 	The Two-Plug Method Other							
7 26 & 29 3895-6505	0-35	DISTORT SELFCENCE LINE		8 1/2	1								
CEMENTING TO PLUG AND AB	SANDON DATA:		PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7				
Size of Hole or Pipe in which Plug Will B			8 1/2	8.7-6.2	6.184	6.184	6.184	6184	THE STATE OF STATE				
Depth to Bottom of Tubing or Drill Pipe (ft		4430	3610	3010	2300	1550	170	Communication of the state of t				
Sacks of Cement To Be Used (each plug)			155	42	52	28	[39]	24					
Slurry Volume To Be Pumped (cu. ft.)			261	12410	85	46	63	0					
Calculated Top of Plug (ft.) Measured Top of Plug (if tagged ft.)			3795	3410	2640	2100	1276	<u>U</u>	Parameter and the second				
Slurry Wt. (Lb./Gal.)			15.6	115.6	15.6	15.6	15.6	15.6					
Type Cement or Other Material (Class III)			Type I-II	THE RESERVE OF THE PERSON NAMED IN	silica flour	10% silica lite	113.0	112.0	<u> </u>				
LIST ALL OPEN HOLE	C AND/OD DEDE	ODATED INT				for the second second	T VARIED (if		<u> </u>				
From		To	ERVALS AN	DIMIEKAN	From	SING WILL D	E AWVIED (11	То					
	505				11011		10						
TOUT	THE PROPERTY AND A PROPERTY AND ADDRESS OF THE PARTY.			ATTACAMENT OF THE PARTY	etter (1900) erosega gelensiska filologia (d. 1900) ggg. F. D. Markegger, er erosega kalla Transmitte es er ta			нар и не менятиро то неголива поворилась в тот в тех устаную; в такие на монто и том объеми от населения и и п На технология на становителя почина турну преда него до на техноризации престинут в турне почина починали да п					
Consider the Control of the Control	Control of the Contro			THE RESERVE OF THE PERSON OF T	No. 1 (All parameters of the Archael All Market (Archael All Market) (Archael Archael								
The many field of the control of the	Company of the state of the sta				AND ASSESSMENT OF THE PARTY OF								
Estimated Cost to Plug Wells \$303,500													
Certification I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)													
Name and Official Title (Please type or pr Michael L. Kaleikini, Plant Manager	int)	Sign	nature					Date Signed					

United States Environmental Protection Agency Washington, DC 20460 PLUGGING AND ABANDONMENT PLAN													
Name and Address of Fa Puna Geothermal Ver 14-3860 Kapoho Pah	nture	No continue principal accessors a company of Principal access and Principal	The state of the s		Na P	me and Add	Iress of Ownermal Ventur Pahoa, HI 96	er/Operator e	A conference of the second				
Locate Well and O	utline Unit on	1	State HI		to the house the		County Hawaii	er arrant i ramaer titris a	Permit	Number	marks) http://www.com.com.com/com/com/com/com/com/com/com/com/com/		
Section Plat - 640 A	cres		L-maria.	ice Location	Des		Hawaii			F BMTh) ware common creds hit is commission on the commission of			
]	N		·	(m **********			f <u>n/a</u> 1/4 of	Section n/a	Township	n/a Range	n/a		
	- - - - - - - - -	Locat Surfa	Locate well in two directions from nearest lines of quarter section and drilling unit Surface 8317.9 ft. N and 9430.2 ft E of Kaliu Location ft. frm (N/S) Line of quarter section Benchmank										
I w ├── ┆	1				<u> </u>	JTHORIZATI		Τ	WELL	WELL ACTIVITY			
	-			Area Permit CI Rule Number of Wells					LASS I LASS II Brine Disposal Enhanced Recovery Hydrocarbon Storage LASS				
	s		Leaso	e Name Ka	poho	State		Well Num	2	The global county that the comment of all the facilities are considered.			
CA!	SING AND TU	BING RECORI	D AFTER PLUG		And and are	Name and Address of the State o	METH	~	EMPLACEMENT OF CEMENT PLUGS				
SIZE WT (LB/FT) 20 94	TO BE PUT II	N WELL (FT)	TO BE LEFT I					✓ The Balance Method ☐ The Dump Bailer Method ☐ The Two-Plug Method					
9 5/8 47			0-3897	Inc I wo I lug inctitou									
7 [29	3767-6835		0-3724		Jeres I.	8 1/2]		1	1			
CEMENTING Size of Hole or Pipe in v		D ABANDON DA		PLUG 8 1/2	#1	PLUG #2	PLUG #3	PLUG #4 6.184	PLUG #5	PLUG #6	PLUG #7		
Depth to Bottom of Tubi			mono —	5198	k	2660	2309	1130	170		L		
Sacks of Cement To Be	Used (each pl	ug)		460		40	65	28	24				
Slurry Volume To Be Pu	mped (cu. ft.)			744		64	105	46	39		ALLER STATE VALUE OF THE PARTY		
Calculated Top of Plug (• •			3624		2380	1850	930	0				
Measured Top of Plug (in	f tagged ft.)												
Slurry Wt. (Lb./Gal.)				15.6		15.6	15.6	15.6	15.6	AND CONTRACTOR	bergand		
Type Cement or Other M						w/30%	silica flour	10% silica lite					
	Γ ALL OPEN H	OLE AND/OR	PERFORATED	INTERVALS	ANE	INTERVAL		SING WILL B	E VARIED (if				
From [3897]		7406	То	T favor and program from the state is strong out the same	-	COLUMN TARRACTURE CANCEL TAR	From		To				
389/	ment or major that extract contact as the facilities are as a second of the facilities are a second of the facilities	1/400	Control of the Contro				rafi yagga saaba ayaayaan saadaa saadaa saadaa aa ahagaa hagaa, ii o hagan gaa ahaa saada paasaan			N. Bellemen a series and e. A. Sanda Alberton. T. Elle There are removed to the grant of the control	The second secon		
		 	Carried St. Co., and the said control of				and the state of t						
in ages, may planete tripe a visit party, buy by a margan trapenty in a state of the county party and a second		The company and province and increase the property of the company	and the state of t	AL A. P. S.	1 1	and the second s					on recent to Third State of the Contract of th		
Estimated Cost to Plug	Wells	L	make the better the source are amounted as were			The second secon	Carried Santage				manda di alifebrar di manoni propie		
\$334,000	material Management (1985) in respect to a second s	Property states for the control of t		es es successor de la companya de la	na v o o o o o o o o o o o o o o o o o o		etakan kendidakan dari beranca d Beranca dari beranca dari beranc	t service a final control of the service of the ser	engaris ferbor estan auen au-	Tara yaga ay oo aan oo ah			
I certify under the attachments and t information is true possibility of fine	that, based on e, accurate, ar and imprison	n my inquiry o nd complete. ment. (Ref. 4	of those individ I am aware tha O CFR 144.32)	luals immed at there are	am fa liatel	miliar with y responsik	ole for obtaini	ing the infor	nation, I beli	eve that the including the	e		
Name and Official Title (Michael L. Kaleikini,	Common and the second of the s	was alternated from with the contract of the same		Signature						Date Signed			
Wilchael L. Kaleikilli,	riant Manag	21	Ry value of								on a real file of Management was		

PLUGGING AND ABANDONMENT PLAN Name and Address of Facility. Puna Geothermal Venture Puna Ge	United States Environmental Protection Agency Washington, DC 20460													
Hawaii Surface Location Description Wall of May 144 of Section May 146 of Section M	Puna	Name and Address of Facility Puna Geothermal Venture Name and Address of Owner/Operator Puna Geothermal Venture												
Surface Location Description Name	Lo	ocate Well and C	Outline Unit on	Control State State of the Landson	1	Annie de la company de la comp							Number	
Name and Official Title Page Pa			Acres		<u> </u>	because of the second s								
Surface 8879.72 ft. N and 9601.32 ft E of Kaliu Benchmark and in the from (EW) Line of quarter section. WELL ACTIVITY CLASS II Brine Disposal Brine Dis	Г	<u> </u>	N I I	n/a	a 1/4 of	f <u>n/a</u> 1/4	of <u>n/a</u> 1/4	of	n/a 1/4 of	Section <u>n/a</u>	Township	n/a Range	n/a	
WELL ACTIVITY Total Color Calcast Calca		╸┽┈┝╸┽ ╸┽┈┝╸┽ ╸┽┈┝╸┽	Surface 8879.72 ft. N and 9601.32 ft E of Kaliu Location ft. frm (N/S) Line of quarter section Benchmark											
CLASS CLASS CLASS CLASS Rule Number of Welts Number of Welts Strine Disposal Enhanced Recovery Hydrocarbon Storage CLASS Well Number I Well Number	l w L	 		F		ALC: CONTRACT OF THE PARTY OF T		ALC: UNITED IN	TION	١	1	WELL A	ACTIVITY	
Number of Wells S	-	- - - - - - - - - - - 	Area Permit CLASS II Rule Brine Disposal											
CASING AND TUBING RECORD AFTER PLUGGING	-	╺┽╾┞┤	╌┠╌┼╼ ├	-+-	\ \ \	Number	of Wells (_				П П	ydrocarbon	-	
CASING AND TUBING RECORD AFTER PLUGGING METHOD OF EMPLACEMENT OF CEMENT PLUGS	CLASS										WARREN CAN BELLEVING OF BURNEY			
SIZE WT (LB/FT) TO BE PUT IN WELL (FT) TO BE LEFT IN WELL (FT) HOLE SIZE	Lease Name Well Number													
1	SIZE							HOLE SIZ					P CEMENT P	LUGS
1			TO BE FOI II	WELL (FI)		Tille balance method								
CEMENTING TO PLUG AND ABANDON DATA: PLUG #1 PLUG #2 PLUG #3 PLUG #4 PLUG #5 PLUG #6 PLUG #7	Parameter Annual Control		Contact Annual Contact of the Section of			[SOIL								
CEMENTING TO PLUG AND ABANDON DATA: PLUG #1 PLUG #2 PLUG #3 PLUG #4 PLUG #5 PLUG #6 PLUG #7	1/00-1-1-1				0-4367	14 3/4" Other								
Size of Hole or Pipe in which Plug Will Be Placed (inche 10,625 10,625 10,685 8.68 8.68 8.68 8.68	9 5/8	47			0-3290	[14.85"]								
Depth to Bottom of Tubing or Drill Pipe (ft 6205 4467 3390 2202 1102 170 Sacks of Cement To Be Used (each plug) 608 80 65 51 51 43 Sturry Volume To Be Pumped (cu. ft.) 985 130 105 83 83 70 Calculated Top of Plug (ft.) 4605 4267 3190 2002 092 0 Measured Top of Plug (if tagged ft.) 15.6	0' 6								2			**************************************		PLUG #7
Sacks of Cement To Be Used (each plug) 608					inche				뷕		,	(1) Wallet 10 10 10 10 10 10 10 1		
Slurry Volume To Be Pumped (cu. ft.) 985 130 105 83 83 70								AND EASTERN THE PERSONS	뤽	1		Management of the last of the		
Measured Top of Plug (if tagged ft.) Slurry Wt. (Lb./Gal.) Type Cement or Other Material (Class III) LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any) From To From To From To 4367' 7952' Certification I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32) Name and Official Title (Please type or print) Signature Date Signed	Slurry '	Volume To Be P	umped (cu. ft.)		-			130			83	83		
Slurry Wt. (Lb./Gal.) Type Cement or Other Material (Class III) LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any) From To From To 4367' 7952' Certification I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32) Name and Official Title (Please type or print) Signature Date Signed	Calcula	ated Top of Plug	(ft.)				4605	4267		3190	2002	092	0	
Type Cement or Other Material (Class III) LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any) From To From To To To To To To Certification I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32) Name and Official Title (Please type or print) Signature Date Signed			if tagged ft.)											
LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any) From To From To [4367' [7952'] [<u> </u>						and Institute and			processing and the same of	15.6	15.6	
From To From To To From To	Type C		•		DEDE:					land and the second	h			<u> </u>
### Certification Certification Certification			SI ALL OPEN H	OLE AND/OR		ED INTE	KVALS A	INTERVA			SING WILL B	E VARIED (if		
Estimated Cost to Plug Wells \$366,000 Certification I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32) Name and Official Title (Please type or print) Signature Date Signed	4367			7952'								a torres de la contra del la contra del la contra del la contra de la contra del la contra de la contra de la contra del la contra de la contra del la contra del la contra de la contra del		
Certification I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32) Name and Official Title (Please type or print) Signature Date Signed					***************************************									
Certification I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32) Name and Official Title (Please type or print) Signature Date Signed														
Certification I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32) Name and Official Title (Please type or print) Signature Date Signed		ne de l'annue de l'ann												
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32) Name and Official Title (Please type or print) Signature Date Signed														
The suppose of the su	a i	I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the												
Michael L. Kaleikini, Plant Manager	[

United States Environmental Protection Agency Washington, DC 20460 PLUGGING AND ABANDONMENT PLAN												
	PLUGGING	AND AB	_									
Name and Address of Facility Puna Geothermal Venture 14-3860 Kapoho Pahoa Road, Pah	oa, HI 96778		Pι	una Geother	ress of Owner mal Ventur ahoa, HI 96	е	o e e gar esque e que se gamma e encamación e en a gamma e encamación e encamación e encamación e encamación e	en er en				
Locate Well and Outline Unit on Section Plat - 640 Acres	7****	State County Permit Numbe							No. of the second secon			
, , , , , , , , , , , , , , , , , , ,	·	Surface Location Description n/a 1/4 of n/a 1/4 of n/a 1/4 of N/a 1/4 of N/a Township n/a Range n/a										
┃ ├─┽╾├╌┼╾┣╌┼╼┞ ┃ ├─┿╼├╌┼╼┠╌┼╼┞ ┃ ├─┿╼├╌┼╼┠╌┼╼┞	Sui	Locate well in two directions from nearest lines of quarter section and drilling unit 9029.2 E and 9854.6 N of Kaliu Surface Location ft. frm (N/S) Line of quarter section and ft. from (E/W) Line of quarter section.										
w - 	E	Individual P		JTHORIZATIO it	N	CLAS	SS I SS II	ACTIVITY				
		Rule Number of Wells					☐ Brine Disposal ☐ Enhanced Recovery ☐ Hydrocarbon Storage ☐ CLASS					
S	Lea	ase Name Ka	poho	State	and the state of t	Well Numl	umber 13					
CASING AND TUE	SING RECORD AFTER PLL	JGGING			METH	ACEMENT C	ACEMENT OF CEMENT PLUGS					
SIZE WT (LB/FT) TO BE PUT IN 22	TO BE LEF 10-954 10-2076 10-4885 14647-6970	T IN WELL (FT		HOLE SIZE 26" 20" 1 14 3/4" 1 10 9/16"	The	e Balance Me e Dump Baile e Two-Plug M ner	iler Method					
CEMENTING TO PLUG AND		PLUG		PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7			
Size of Hole or Pipe in which Plug Wil	l Be Placed (inche	10 9/1	6	10.6	10.6	10.6	10.6					
Depth to Bottom of Tubing or Drill Pip		6955		4985	2175	1054	170	THE STREET, STATE OF				
Sacks of Cement To Be Used (each plu Siurry Volume To Be Pumped (cu. ft.)	19)	1744		227	130	130	65 105	PARTY TO STATE OF THE				
Calculated Top of Plug (ft.)		[5000		4600	1975	854	0					
Measured Top of Plug (if tagged ft.)		15000						Commence of the Commence of th				
Slurry Wt. (Lb./Gal.)		15.6		15.6	15.6	15.6	15.6	THE WORLD DOOR NAME				
Type Cement or Other Material (Class	III)	Type	I-II]	w/30%	silica flour	10% silica lite						
LIST ALL OPEN H	OLE AND/OR PERFORATE	D INTERVALS	ANE	INTERVALS	WHERE CA	SING WILL B	E VARIED (if	any)				
From	То	Annant 1100 1100 1100 1100				То						
4885	8263		<u> </u>									
	Popular and a second se		<u> </u>		granget granger gran de race tentra de service.		Control of the Contro					
	the elementary of the test the test (coloridae, coloridae) are representative or a finite section of the coloridae.	er (a. New York en la	1	THE RESERVE TO STREET, AND SECURITION OF THE PARTY OF THE	igan - managangangangan pagkalan arawa, siya sa sa sa kaban Wanagangan pagkalan di managan sa ikin di managan		anders and representation of the second seco	ner van rede apperatuur van rede verbeur 19 Project van de apperatuur van van van verbeur 1904 (19				
Estimated Cost to Plug Wells \$399,000												
Certification I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32) Name and Official Title (Please type or print) Signature Date Signed												
Michael L. Kaleikini, Plant Manager												

EPA Form 7520-14 (Rev. 12-08)

€E	PA	PL		Wa	shington,	tal Protection DC 20460 NDONI	DECEMBER 1991	PLAN							
The second	d Address of F					200 The 200 The		wner/Operator							
	ieothermai Ve 0 Kapoho Pah	nture 10a Road, Pahoa, HI 967	78			Puna Geothermal Venture PO Box 30, Pahoa, HI 96778									
Loc	ate Well and O	Putline Unit on N/A		State			County	Permit	nit Number						
Sec	tion Plat - 640 A	Acres		HI		Hawaii									
		N		(nce Location Description										
				n/a 1/4 c	a 1/4 of <u>n/a</u> 1/4 of <u>n/a</u> 1/4 of <u>n/a</u> 1/4 of Section <u>n/a</u> Township <u>n/a</u> Range <u>n/a</u>										
 - - - - - -	+		Surface Location and Indi Indi Rui	ft. from (E TYPE OF a vidual Per a Permit	NOSE OFF	om nearest lines of quarter section and drilling unit Califu Benchmark Line of quarter section of quarter section. ION WELL ACTIVITY CLASS II CLASS II Brine Disposal Enhanced Recovery Hydrocarbon Storage CLASS III X Class V									
10		S	Lease Na	Kapol	no State		Well Num	her ISRD							
	CA	SING AND TUBING RECO	RD AFTER				T M	ETHOD OF EMP		F CEMENT PI	ugs				
SIZE	WT (LB/FT)	TO BE PUT IN WELL (FT		LEFT IN W		HOLE SIZ			The Balance Method The Dump Bailer Method						
22"	114.8		0-104	-		26"	뒤 날								
16"	84		0-229						o-Plug Method						
11-3/4	65			5 (milled	window)	14-3/4"		metilou							
8-5/8"	36		2789-	3.44.55		10-5/8"		Other							
	CEMENTING	TO PLUG AND ABANDON	DATA:		PLUG #	PLUG #	2 PLUG	#3 PLUG #4	PLUG #5	PLUG #6	PLUG #7				
Size of h	lole or Pipe in	which Plug Will Be Place	(Inche		7.625	7.6/7.88	10.682	2 10.682	10.682	10.682					
Depth to	Bottom of Tub	oing or Drill Pipe (ft			5182	3801	2889	2392	1142	232					
Sacks of	Cement To Be	Used (each plug)			280	30	60	80	80	90					
Slurry V	olume To Be Pu	ımped (cu. ft.)			450	48	98	125	125	145					
	ed Top of Plug	1 1			3801	3656	2689	2192	942	0					
Measure	d Top of Plug (If tagged ft.)	7.60] [
- 557	/t. (Lb./Gal.)	2.000			15.6	15.6	15.6	15.6	15.6	15.6					
Type Ce	ment or Other N	Aateriai (Class III)			Type I-	I with	40%	Silica	Flour						
		T ALL OPEN HOLE AND/O			ERVALS A	ND INTERVA		CASING WILL B	E VARIED (II						
	From		То)			From			То					
3901'		5182'													
_					1										
Estlerate	d Cost to Plug	Welle													
\$408,8		Avoltz			41137=211										
at In po	tachments and formation is tru essibility of fine	e penalty of law that I hav that, based on my inquir- le, accurate, and complet and imprisonment. (Ref	of those e. I am av	ily examine Individuals vare that th	s immedia nere are si	familiar with tely respons	ible for obt	taining the info	mation, I bel	leve that the including the	0				
I all and a second	ame and Official Title (Please type or print) Signature Date Signed														
Keoki	Wells EHS co	ordinator			YOU	M				07/14/201	5				