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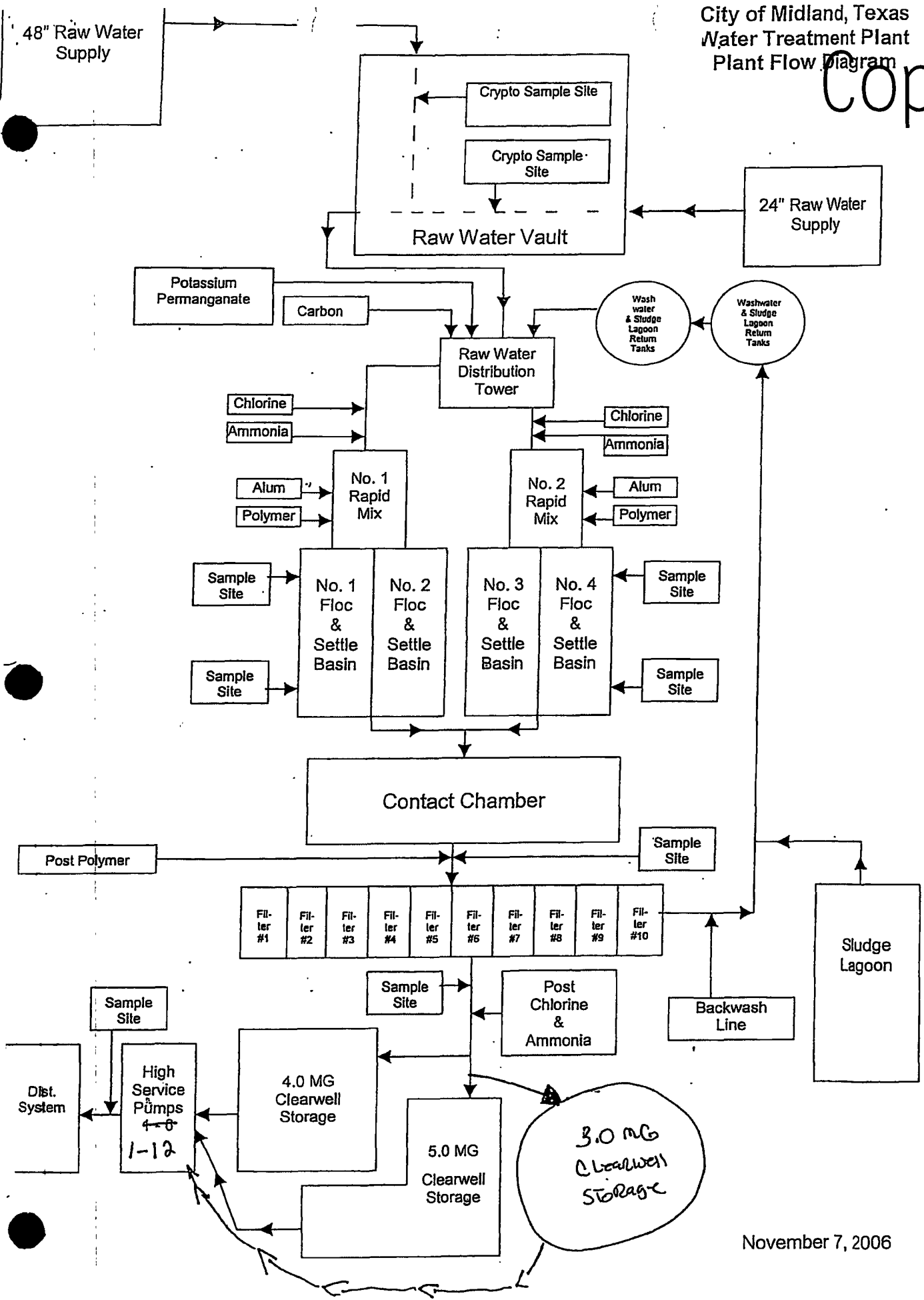


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City of Midland, Texas
Water Treatment Plant
Plant Flow Diagram

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November 7, 2006



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EMPLOYEE NAME	CLASSIFICATION	CERT.	LICENSE #	EXP DATE
PAUL DAVIS - 305				
Oviedo, David	Well Field Operator	D	WO0038741	06/09/19
Williams, Nicholas	Well Field Operator	D	WO0039474	09/13/19
AIRPORT - 306				
Aguilar, Jesse	Well Field Operator	D	WO0037924	11/23/18
WATER PURIFICATION - 320				
Burchfield, Joe	Utility Plant Operator	D	WO0037539	09/01/18
Carr, Darryl	Utility Plant Operator	D	WO0037070	07/30/18
Darst, Coty	Utility Plant Operator	D	WO0037290	03/07/19
Franklin, James	Electrical/Electronics Technician	D	WO0038889	08/15/19
Green, Marquis	Utility Plant Operator			
Hunt, Theodore	Electrical/Electronics Technician	D	WO0039447	09/13/19
Kingston, Greg	Maintenance Supervisor	A	WO0028901	02/18/17
Kraft, Kymberly	Utility Plant Operator	D	WO0039304	07/28/19
Lombardini, Christian	Utility Plant Operator	D	WO0036197	11/21/17
Morris, Dylan	Utility Plant Operator			
Nava, Jesus	Maintenance Mechanic	D	WO0039459	09/13/19
Olivas, Nathan	Utility Plant Operator			
Portillo, Robert	Utility Plant Operator	D	WO0038743	07/26/19
Rinehart, Roxanne	Administrative Assistant	----	-----	-----
ddler, Raymond	Superintendent	A	WO0029298	06/02/17
anchez, Mark	Utility Plant Operator	D	WO0037975	06/01/19
Sanford, Shawn	Utility Plant Operator	D	WO0037550	09/01/18

A Licenses - 2
B Licenses - 0
C Licenses - 0
D Licenses - 14



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<u>Texas Commission on Environmental Quality</u>	<u>Office of Water</u>	<u>Public Drinking Water Section</u>
<u>County Map of TX</u>	<u>Water System Search</u>	<u>Office of Compliance and Enforcement</u>

10/24/2016

Texas Commission on Environmental Quality

10:10:06

DWW Water System Summary Sheet

PWS ID	PWS Name	Central Registry RN
TX1650001	CITY OF MIDLAND WATER PURIFICATION PLANT <i>Superior</i>	RN101384899

Organization/Customer *	Central Registry CN
CITY OF MIDLAND	CN600246813

*Regulatory mail will be addressed to this organization/person

All Water System Contacts			
Type	Contact	Communication	
AC - Administrative Contact - MAYOR	MORALES, JERRY PO BOX 1152 MIDLAND, TX 79702-1152	Phone Type	Value
		BUS - Business	432-685-7200
		BUS - Business	432-685-7260
ECS - Emergency Contact - Secondary - SUPERINTENDENT	SADDLER, RAYMOND PO BOX 1152 MIDLAND, TX 79702-1152	Phone Type	Value
		BUS - Business	432-681-7662
		FAX - Facsimile	432-681-7608
		MOB - Mobile	432-413-5131
		EMERG - Emergency	432-681-7606
OW - Owner	CITY OF MIDLAND PO BOX 1152 MIDLAND, TX 79702-1152		
PWS - Public Water System Contact - UTILITIES DIRECTOR	WILSON, LAURA, R PO BOX 1152 MIDLAND, TX 79702-1152	Phone Type	Value
		BUS - Business	432-685-7260
		FAX - Facsimile	432-685-5056
		MOB - Mobile	432-235-9956
		EMERG - Emergency	432-685-7110

Operator Grade	Number
WATER OPERATOR Grade A	2
WATER DISTRIBUTION OPERATOR Grade C	2



SURFACE WATER TREATMENT OPERATOR Grade B	1
WATER DISTRIBUTION OPERATOR Grade B	2
GROUND WATER TREATMENT OPERATOR Grade C	1
SURFACE WATER TREATMENT OPERATOR Grade C	2

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Water Operator Licenses		
License Holder:	KERLEY, MATTHEW BUCK	
CURRENT	Class: A - WATER OPERATOR	WO0008816
License Holder:	WIGGINS, GARY WAYNE	
CURRENT	Class: A - WATER OPERATOR	WO0001630
License Holder:	LOPEZ, ABEL R	
CURRENT	Class: B - SURFACE WATER TREATMENT OPERATOR	WS0006179
License Holder:	CEBALLOS, JOHNNY S	
CURRENT	Class: B - WATER DISTRIBUTION OPERATOR	WD0000890
License Holder:	RAMIREZ, FELIPE SR	
CURRENT	Class: B - WATER DISTRIBUTION OPERATOR	WD0001879
License Holder:	ORTEGA, EDUARDO	
CURRENT	Class: C - SURFACE WATER TREATMENT OPERATOR	WS0003365
License Holder:	HALL, JAMES E	
CURRENT	Class: C - SURFACE WATER TREATMENT OPERATOR	WS0010730
License Holder:	HARMON, BENSON C	
CURRENT	Class: C - WATER DISTRIBUTION OPERATOR	WD0000646
License Holder:	RAMIREZ, LAWRENCE D	
CURRENT	Class: C - GROUND WATER TREATMENT OPERATOR	WG0003246
License Holder:	MONTEZ, LEROY D	
CURRENT	Class: C - WATER DISTRIBUTION OPERATOR	WD0002833
License Holder:	BEDWELL, MARGARET A	
EXPIRED	Class: B - SURFACE WATER TREATMENT OPERATOR	WS0000814
License Holder:	ROBERTSON, DANNY L	
EXPIRED	Class: B - WATER DISTRIBUTION OPERATOR	WD0004221
License Holder:	JONES, MARIA I	
EXPIRED	Class: B - SURFACE WATER TREATMENT OPERATOR	WS0003015
License Holder:	MEEKS, HARLEY D	
EXPIRED	Class: B - GROUND WATER TREATMENT OPERATOR	WG0005226
License Holder:	CAMPBELL, ROBERT EARL	
EXPIRED	Class: B - SURFACE WATER TREATMENT OPERATOR	WS0001863
License Holder:	LOZA, DEBE VALDEZ	
EXPIRED	Class: B - GROUND WATER TREATMENT OPERATOR	WG0000172



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License Holder:	GRANT, CARLTON L	
EXPIRED	Class: C - SURFACE WATER TREATMENT OPERATOR	WS0004067
License Holder:	LEGGETT, BLAKE	
EXPIRED	Class: C - SURFACE WATER TREATMENT OPERATOR	WS0011100
License Holder:	ROBERTSON, DANNY L	
EXPIRED	Class: C - SURFACE WATER TREATMENT OPERATOR	WS0005603
License Holder:	SCOTT, JAMES W SR	
EXPIRED	Class: C - SURFACE WATER TREATMENT OPERATOR	WS0004207
License Holder:	LEGGETT, BLAKE	
EXPIRED	Class: D - WATER OPERATOR	WO0030807
License Holder:	MEEKS, MATTHEW R	
EXPIRED	Class: D - WATER OPERATOR	WO0030819

Owner Type	Owner Type Options: COUNTY, DISTRICT, FEDERAL GOVERNMENT, INVESTOR OWNED, MUNICIPALITY, NATIVE AMERICAN, PRIVATE, STATE GOVERNMENT, WATER SUPPLY CORPORATION
Municipality	

System Type	System Type Options: COMMUNITY, TRANSIENT/NON-COMMUNITY, C - Community, NON-PUBLIC, NON-TRANSIENT/NON-COMMUNITY
C - Community	

Population Type	Population Served	# of Connect	# I/C w/other PWS
Residential	119385 132950	67946 69349	0

Total Product (MGD)	Average Daily Consump. (MGD)	Max Daily Demand (MGD)	Total Storage (MG)	Elev. Storage (MG)	Service Pump Cap.	Max.Purchase Cap. (MGD/GPM)	Pressure Tank Cap. (MG)
57.012	13.214 (MGD)	23.742	35.000	18.000	193.764 (MGD)	0.000	0.00023

Activity Status	Inactivation Date
A - ACTIVE	

Last Survey Date	Surveyor	Survey Type	Region	County
01/23/2014	LINDSEY, D BUCKNER	Sanitary Survey	ODESSA	MIDLAND



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01/31/2013	LINDSEY, D BUCKNER	Sanitary Survey	ODESSA	MIDLAND
01/20/2012	LINDSEY, D BUCKNER	Sanitary Survey	ODESSA	MIDLAND
10/25/2014	Heather Moore	"	Midland	Midland

(Treatment Plant)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
EP001	TRT-TAP / Purchased Surface Water(A)	PLANT - PAUL DAVIS(A)	TP10128		NO		NO

Train:	Unnamed			
(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
null	null	D	361	4-LOG TREATMENT OF VIRUSES
null	null	D	403	GASEOUS CHLORINATION, PRE

(Active Sources)						
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1650001AG	33 - PAUL DAVIS WELL FIELD (A)	P	G	212	800 GPM	1091 GPM
Drill Date		Source Summary				
11/21/1985		OGALLALA				
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller		
32.451423	-102.21513	2952	05/04/2006	Not Purchasing		
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1650001S	19 - PAUL DAVIS WELL FIELD (A)	P	G	178	450 GPM	417 GPM
Drill Date		Source Summary				
02/28/1959		OGALLALA				
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller		
32.413277	-102.162009	2896	05/04/2006	Not Purchasing		
Source Name (Activity Status)				Depth		



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Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1650001AO	41 - PAUL DAVIS WELL FIELD (A)	P	G	189	500 GPM	624 GPM
Drill Date		Source Summary				
01/31/1986		OGALLALA				
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller		
32.436532	-102.262202	2967	05/04/2006	Not Purchasing		
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1650001O	15 - PAUL DAVIS WELL FIELD (A)	P	G	192	350 GPM	278 GPM
Drill Date		Source Summary				
03/15/1958		OGALLALA				
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller		
32.401099	-102.159332	2901	05/04/2006	Not Purchasing		
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1650001P	16 - PAUL DAVIS WELL FIELD (A)	P	G	175	350 GPM	231 GPM
Drill Date		Source Summary				
07/05/1957		OGALLALA				
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller		
32.40709	-102.153835	2899	05/04/2006	Not Purchasing		
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1650001Q	17 - PAUL DAVIS WELL FIELD (A)	P	G	180	350 GPM	244 GPM
Drill Date		Source Summary				
03/21/1959		OGALLALA				
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller		
32.407034	-102.16071	2899	05/04/2006	Not Purchasing		
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1650001U	21 - PAUL DAVIS WELL FIELD (A)	P	G	156	150 GPM	161 GPM
Drill Date		Source Summary				
02/12/1964		OGALLALA				



GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.424407	-102.161786	2905	05/04/2006	Not Purchasing			
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1650001AK	37 - PAUL DAVIS WELL FIELD (A)	P	G	158	1180 GPM	1398 GPM	
Drill Date		Source Summary					
12/13/1985		DOCKUM					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.430842	-102.235324	2911	05/04/2006	Not Purchasing			
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1650001Y	25 - PAUL DAVIS WELL FIELD (A)	P	G	160	500 GPM	618 GPM	
Drill Date		Source Summary					
11/01/1980		OGALLALA					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.432571	-102.177675	2890	05/04/2006	Not Purchasing			
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1650001AA	27 - PAUL DAVIS WELL FIELD (A)	P	G	161	200 GPM	366 GPM	
Drill Date		Source Summary					
12/01/1980		OGALLALA					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.431909	-102.187609	2899	05/04/2006	Not Purchasing			
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1650001AN	40 - PAUL DAVIS WELL FIELD (A)	P	G	135	200 GPM	441 GPM	
Drill Date		Source Summary					
01/08/1986		OGALLALA					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.431792	-102.256697	2925	05/04/2006	Not Purchasing			
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1650001AD		P	G	183	600 GPM	561 GPM	

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30 - PAUL DAVIS WELL FIELD (A)							
Drill Date		Source Summary					
02/22/1985		OGALLALA					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.438475	-102.207068	2923	05/04/2006	Not Purchasing			
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1650001AP	42 - PAUL DAVIS WELL FIELD (A)	P	G	194	400 GPM	363 GPM	
Drill Date		Source Summary					
03/01/1986		OGALLALA					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.440195	-102.269491	2986	05/04/2006	Not Purchasing			
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1650001AF	32 - PAUL DAVIS WELL FIELD (A)	P	G	206	800 GPM	714 GPM	
Drill Date		Source Summary					
11/18/1985		OGALLALA					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.445923	-102.211365	2939	05/04/2006	Not Purchasing			
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1650001AH	34 - PAUL DAVIS WELL FIELD (A)	P	G	203	500 GPM	500 GPM	
Drill Date		Source Summary					
01/01/1913		OGALLALA					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.442969	-102.228097	2960	05/04/2006	Not Purchasing			
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1650001B	2 - PAUL DAVIS WELL FIELD (A)	P	G	207	350 GPM	610 GPM	
Drill Date		Source Summary					
05/04/1960		OGALLALA					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			



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32.37061	-102.102103	2887	05/04/2006	Not Purchasing			
Source Number	Source Name (Activity Status)		Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1650001M	13 - PAUL DAVIS WELL FIELD (A)		P	G	175	100 GPM	120 GPM
Drill Date		Source Summary					
02/25/1958		OGALLALA					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.394078	-102.158947	2896	05/04/2006	Not Purchasing			
Source Number	Source Name (Activity Status)		Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1650001AI	35 - PAUL DAVIS WELL FIELD (A)		P	G	188	1000 GPM	1153 GPM
Drill Date		Source Summary					
10/01/1986		OGALLALA					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.434732	-102.229511	2945	05/04/2006	Not Purchasing			
Source Number	Source Name (Activity Status)		Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1650001AM	39 - PAUL DAVIS WELL FIELD (A)		P	G	174	600 GPM	811 GPM
Drill Date		Source Summary					
01/30/1986		OGALLALA					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.436515	-102.251635	2961	05/04/2006	Not Purchasing			
Source Number	Source Name (Activity Status)		Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1650001E	5 - PAUL DAVIS WELL FIELD (A)		P	G	212	450 GPM	335 GPM
Drill Date		Source Summary					
06/05/1960		OGALLALA					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.375768	-102.124153	2906	05/04/2006	Not Purchasing			
Source Number	Source Name (Activity Status)		Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1650001F	6 - PAUL DAVIS WELL FIELD (A)		P	G	211	670 GPM	474 GPM



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Drill Date		Source Summary					
04/24/1960		OGALLALA					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.375835	-102.131858	2908	05/04/2006	Not Purchasing			
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1650001Z	26 - PAUL DAVIS WELL FIELD (A)	P	G	156	400 GPM	690 GPM	
Drill Date		Source Summary					
12/01/1980		OGALLALA					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.428726	-102.182203	2899	05/04/2006	Not Purchasing			
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1650001A	1 - PAUL DAVIS WELL FIELD (A)	P	G	196	350 GPM	660 GPM	
Drill Date		Source Summary					
05/16/1960		OGALLALA					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.366761	-102.096371	2879	05/04/2006	Not Purchasing			
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1650001AB	28 - PAUL DAVIS WELL FIELD (A)	P	G	182	700 GPM	800 GPM	
Drill Date		Source Summary					
12/01/1980		DOCKUM					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.431902	-102.196669	2916	05/04/2006	Not Purchasing			
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1650001C	3 - PAUL DAVIS WELL FIELD (A)	P	G	214	500 GPM	391 GPM	
Drill Date		Source Summary					
04/26/1960		OGALLALA					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.373852	-102.109217	2897	05/04/2006	Not Purchasing			
	Source Name (Activity Status)			Depth			



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Source Number	Operational Status	Source Type	Tested GPM	Rated GPM		
G1650001T	P	G	169	200 GPM		
20 - PAUL DAVIS WELL FIELD (A)				263 GPM		
Drill Date		Source Summary				
04/03/1964		OGALLALA				
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller		
32.42041	-102.152461	2895	05/04/2006	Not Purchasing		
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1650001AC	29 - PAUL DAVIS WELL FIELD (A)	P	G	181	150 GPM	161 GPM
Drill Date		Source Summary				
11/06/1985		OGALLALA				
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller		
32.433391	-102.207033	2926	05/04/2006	Not Purchasing		
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1650001G	7 - PAUL DAVIS WELL FIELD (A)	P	G	208	150 GPM	230 GPM
Drill Date		Source Summary				
02/07/1958		OGALLALA				
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller		
32.377731	-102.140136	2906	03/07/2014	Not Purchasing		
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1650001H	8 - PAUL DAVIS WELL FIELD (A)	P	G	200	325 GPM	260 GPM
Drill Date		Source Summary				
06/25/1958		OGALLALA				
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller		
32.382042	-102.143864	2897	05/04/2006	Not Purchasing		
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1650001L	12 - PAUL DAVIS WELL FIELD (A)	P	G	217	950 GPM	731 GPM
Drill Date		Source Summary				
02/28/1959		OGALLALA				



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GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.392634	-102.149769	2912	05/04/2006	Not Purchasing			
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1650001AL	38 - PAUL DAVIS WELL FIELD (A)	P	G	165	200 GPM	466 GPM	
Drill Date		Source Summary					
01/22/1986		OGALLALA					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller			
32.432903	-102.242702	2947	05/04/2006	Not Purchasing			

(Inactive/Offline Sources)			
SourceNumber	Name	Status	Depth

(Treatment Plant)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
EP001	TRT-TAP / Purchased Surface Water(A)	PLANT(A)	TP14990		NO		NO

Train: A							
(Treatments)							
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment			
D1	1	D	403	GASEOUS CHLORINATION, PRE			
D1	2	D	890	CHLORAMINES (PRE)			
D1	3	P	810	RAPID MIX (HYRAULIC)			
D1	4	P	823	FLOCCULATION (3+ STAGE MECH)			
D1	5	P	660	SEDIMENTATION			
D2	6	D	999	DETENTION TIME			
D3	7	P	860	FILTRATION (DUAL MEDIA)			
D4	8	D	401	GASEOUS CHLORINATION, POST			
D4	9	D	891	CHLORAMINES (POST)			
D4	9	D	999	DETENTION TIME			



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(Active Sources)						
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
P1650001E	RAW SW FROM CRMWD RAW PRODUCTION FACIL (A)	P	P	N/A	N/A	N/A
Drill Date		Source Summary				
None Available						
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller		
				TX1140038		
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
P1650001B	RAW SW FROM CRMWD EV SPENCE (A)	P	P	N/A	N/A	N/A
Drill Date		Source Summary				
None Available						
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	Seller		
				TX0000001		

(Inactive/Offline Sources)			
SourceNumber	Name	Status	Depth

Code Explanations
Monitoring Type Codes: (GW) GROUNDWATER , (GUP) GROUNDWATER UNDER THE INFLUENCE - PURCHASED , (SWP) SURFACE WATER - PURCHASED , (GU) GROUNDWATER UNDER THE INFLUENCE OF SURFACE WATER , (N) NO SOURCES , (SW) SURFACE WATER
Activity Status Codes: (A) ACTIVE , (D) DELETED/DISSOLVED , (I) INACTIVE , (P) PROPOSED ,
Operational Status Codes: (E) EMERGENCY , (I) INTERIM/PEAK (O) OTHER , (P) PERMANENT , (S) SEASONAL
Source Types: (G) GROUND WATER , (S) SURFACE WATER , (U) GROUND WATER UNDER THE INFLUENCE



- End of Report -

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WPCP (Sewer) TCEQ Inspection 12/17/2015



**Texas Commission on Environmental Quality
Investigation Report**

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**Customer: City Of Midland
Customer Number: CN600246813**

COPY

Regulated Entity Name: CITY OF MIDLAND WWTP

Regulated Entity Number: RN101608891

Investigation #	# 1306558	Incident Numbers	
Investigator:	RAJESH ROY	Site Classification	
Conducted:	12/17/2015 -- 12/17/2015	NAIC Code:	221320
Program(s):	WASTEWATER	SIC Code:	4952
Investigation Type:	Compliance Investigation	Location:	7000 FT SE OF THE INTERSECTION OF SH 307 AND IH-20
Additional ID(s):	WQ0010223001 R10223001		
Address:		Local Unit:	REGION 07 - MIDLAND
		Activity Type(s):	WWTLPCIDS - WW TLAP CCI Discretionary

Principal(s):

Role	Name
RESPONDENT	CITY OF MIDLAND

Contact(s):

Role	Title	Name	Phone
PARTICIPATED IN	LAB ADMINISTRATOR	MRS JOANNA R LOWDER	Work (432) 681-7618
REGULATED ENTITY MAIL CONTACT	DIRECTOR	MS LAURA WILSON	Fax (432) 685-5056 Work (432) 685-7937
PARTICIPATED IN	QA/QC COORDINATOR	MR JAY SATTERFIELD	
REGULATED ENTITY CONTACT	SUPERINTENDENT	CORY MOOSE	Work (432) 685-7465
PARTICIPATED IN	CHIEF OPERATOR	MR OSCAR GRANADO	Work (432) 685-7465



Other Staff Member(s):

Role	Name
QA Reviewer	LINDSEY BUCKNER
Investigator	HILARY COSBY
Supervisor	VICKIE MCLEAN
Investigator	TRENT MARTIN

Associated Check List

<u>Checklist Name</u>	<u>Unit Name</u>
WQ LAND APPLICATION CHECKLIST	WWTP 7
WQ GENERAL CCI CHECKLIST	WWTP 4
WQ DOMESTIC CCI - INTERIM	WWTP 2
WQ EMERGENCY POWER INITIATIVE	WWTP 3
SLUDGE BENEFICIAL USE SITE CCI	WWTP 1
WQ INVESTIGATION - EQUIPMENT MONITORING AND SAMPLING revised 06/2013	WWTP 6
WQ IN-HOUSE LABORATORY COMPLIANCE INVESTIGATION	WWTP 5

Investigation Comments:**INTRODUCTION:**

The City of Midland WWTP was investigated on December 17, 2015. The facility was notified of this investigation on December 02, 2015. This investigation is considered a discretionary land application facility investigation. Aspects of this investigation included a record review of monthly effluent quantity/quality parameters, evaluation of the beneficial use sludge land application program, a review of effluent land application data (including application rates and soil/monitor well data), and review of plant maintenance records and flow meter calibration data. Additionally, effluent samples and field measurements were obtained at the final (#8) evaporation lagoon located at the Spraberry Irrigation Site #2, an inspection of the wastewater lab was conducted, and all treatment units were evaluated during a walk-through of the wastewater treatment plant.

No exit interview was necessary for this investigation. A general compliance letter was issued on January 26, 2016, as no violations were noted as a result of this investigation.

GENERAL FACILITY AND PROCESS DESCRIPTION

The Midland WWTP is permitted to land apply 21.0 million gallons per day (MGD). The primary source of wastewater is domestic. This municipal wastewater treatment plant has two major components, a primary facility and an activated sludge process plant with partial flow capacity using the conventional mode. The facility is authorized to dispose of treated domestic wastewater effluent at a daily average not to exceed 21.0 MGD via surface irrigation of approximately 1950 acres of land for Irrigation Site #1 and approximately 3100 acres of land for Irrigation Site #2. The amount of bulk sewage sludge produce is 290 to less than 1500 (dry weight basis) metric tons per 365 day period which is used for land application. The primary treatment facility consists of four 100-hp pumps receiving from the main city region (Pump Station #1), and four 75-hp pumps receiving influent from the airport area (Pump Station #2). The influent then goes through fine-mesh rotating screens, two vortex/belt press grit removal chambers, and three 102' diameter primary clarifiers. The primary effluent then flows to a splitter box that direct flow to a 1.2 MG aerated holding basin (before it is pumped to Spraberry Irrigation Site#2), or the activated sludge plant.

The active sludge process consists of two aeration basins and two secondary clarifiers. The secondary effluent is then pumped to Irrigation Site#1 or has the capability to blend with the primary effluent that is sent to Irrigation Site #2. Effluent pH was measured in the final (8th) evaporation lagoon located at the Spraberry Irrigation Site#2 as a field measurement and the measured pH level was found 7.83 which were within the permitted pH level 6-9.

Since there was no primary flow measurement device, an accuracy check could not be performed. Two flow meter 16' and 36' were calibrated by certified person. Records of calibration and maintenance reviewed. No violation were identified. The City of Midland has an in-house lab to conduct analysis of their effluent and sludge samples. Parameters included BOD5, TSS/VSS, pH, fecal coliform (Sludge) and % solids. Field measurements were analyzed by Jay



Satterfield, QA/QC Coordinator, Joanna Lowder, Lab Administrator and other plant staff. Class B sludge was applied on land for beneficial use. Sludge was carried to land application site by hauler, TCEQ transporter number TN 3701 and the land was owned by the City of Midland. The annual sludge report was reviewed in detail.

The city of Midland has a Sanitary Sewer Overflow Initiative compliance agreement which was approved on April 23, 2008. They also have a sewer use ordinance and a grease trap program. Collection System problems are handled on a case-by-case basis.

BACKGROUND

Historical effluent BOD₅ problems in the early 2000 were resolved when a new permit in 2002 which restored the 100 mg/l grab limitation as allowed in TAC Chapter 309.3(f)(1) for land application to nonpublic-access acreage. As a result, they are now able to consistently meet their permit limitation for BOD₅. Additionally, the same 2002 permit amendment expanded their sludge application area from 100 acres to 725 acres.

ADDITIONAL INFORMATION

I. Record Review (Record from July 2014 to June 2015)

Permit effluent quality and quantity- The facility treated 10-14 MGD of the 21 MGD permitted flow. The BOD₅ level in treated effluent was found below 100 mg/l permitted level throughout the record review period except on June 08, 2014 to June 10, 2014, July 03, 2014 to July 04, 2014, August 11, 2014, August 30, 2014 and January 02, 2015 to January 04, 2015. On those days BOD₅ level in effluent was found above 100 mg/l. The Regulated Entity (RE) identified the cause of high BOD₅ level in effluent on those days were not to follow the proper sampling technique by the operator. The RE took corrective action as soon as the issue was identified. No noncompliances were noted. Also none of the value was higher than 40% of the permitted value so, RE was not required to notify TCEQ.

Sludge land application- The RE collected sludge sample on July 16, 2014, October 07, 2014, January 08, 2015 and April 08, 2015. The generated sludge quantity fell under the 290 to less than 1,500 metric ton per 365-day period range and according to the range the RE was required to collect sludge sample in each quarter of the reporting period and the requirement was met. The RE met all ceiling concentration of metals found in Table I. Pathogen control was obtained by fecal coliform sampling which was found under 2 million CFU permitted value. Vector attraction reduction was obtained by reducing the volatile solids around 60-70 % which was much higher than 38% permitted level. The RE also met metal limitation as stated in Table 2 (cumulative loading) and Table 3 (monthly average concentration). Soil sampling was conducted in the sludge land application areas according to Special Provision 17. No noncompliances were noted.

Effluent irrigation application- Irrigation report was reviewed from October 2014 to September 2015. During this time period, the city applied 3.21 acre-ft/year/acre to the Spraberry site#2 and 3.19 acre-ft/year/acre to Irrigation Site #1 which were below the permitted level 5.2 acre-ft/year/acre and 4.0 acre-ft/year/acre respectively. Application rates for specific section based on certain vegetation types were also found to be compliant with permit limitation. Nitrogen loading was compliant for limitations specified for all crops noted in the Special Provision 21. No excessive stressed areas were encountered in irrigated acreage. No noncompliances were noted.

Collection system overflow- The permittee reported 14 unauthorized discharges from their collection (sewer) system over the review period. The City of Midland received approval for their Sanitary Sewer Overflow Initiative compliance agreement on April 23, 2008.

Operator certification- The RE properly maintained the operator certification requirement as set forth in the permit. No noncompliances were noted.

II. Physical inspection of the plant and region-collected data

Physical inspection of the plant- A physical inspection of the plant was conducted. All components were found in satisfactory working condition. Flowmeters were found fully functional. No noncompliances were noted.

Region-collected data- On December 17, 2015 field data was collected by a TCEQ Region 7 investigator for pH at final holding pond (8th) at the Spraberry Irrigation site #2. The pH value was found within the permitted value 6-9. No noncompliances were noted.

III. Inspection of the laboratory facilities

An inspection of the lab was conducted on December 17, 2015. The facility was found to have all required reference materials on hand. Conditions in lab were clean, chemicals were safely stored, and all emergency material and material safety data sheet (MSDS) were easily accessible. All instruments/equipments were operational, serviced, and calibrated. No noncompliances were noted.

No Violations Associated to this Investigation



Signed Rajesh Roy
Environmental Investigator

Date 01/22/2016

Signed Victoria Z. Mc...
Supervisor

Date 1/25/16

Attachments: (in order of final report submittal)

- | | |
|--|---|
| <input type="checkbox"/> Enforcement Action Request (EAR) | <input type="checkbox"/> Maps, Plans, Sketches |
| <input checked="" type="checkbox"/> Letter to Facility (specify type) : Compliance
Letter
Investigation Report | <input type="checkbox"/> Photographs |
| <input type="checkbox"/> Sample Analysis Results | <input type="checkbox"/> Correspondence from the facility |
| <input type="checkbox"/> Manifests | <input checked="" type="checkbox"/> Other (specify) : |
| <input type="checkbox"/> Notice of Registration | <input type="checkbox"/> Checklist |



Bryan W. Shaw, Ph.D., P.E., *Chairman*
Toby Baker, *Commissioner*
Jon Niermann, *Commissioner*
Richard A. Hyde, P.E., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

January 26, 2016

The Honorable Jerry Morales, Mayor
City of Midland
P.O. Box 1152
Midland, TX 79702

Re: Compliance Evaluation Investigation at: 3600 FM 307, Midland County,
Midland, TX.
City of Midland Wastewater Treatment Plant, Midland, Texas.
RN101608891: TCEQ Additional ID WQ0010223001, Investigation No.: 1306558

Dear Mayor Morales:

On December 17, 2015, Rajesh Roy of the Texas Commission on Environmental Quality (TCEQ) Midland Region Office conducted an investigation of the above-referenced facility to evaluate compliance with applicable requirements for wastewater treatment. No violations are being alleged as a result of the investigation.

The Texas Commission on Environmental Quality appreciates your assistance in this matter and your compliance efforts to ensure protection of the State's environment. If you or members of your staff have any questions, please feel free to contact Rajesh Roy at the Midland Region Office at 432-570-1359.

Sincerely,

A handwritten signature in cursive script, appearing to read "Vickie L Mclean".

Vickie Mclean
Acting Section Manager
Midland Region Office

VM/rr







Texas Commission on Environmental Quality

SLUDGE BENEFICIAL USE SITE CCI Checklist

Unit Name : WWTP 1 Investigation # :1306558 Facility Name : CITY OF MIDLAND WWTP		County : MIDLAND TCEQ Investigator : RAJESH ROY		
Item No.	Description	Answer	Comments	Due Date
	Identify the type of waste authorized for land application	Class B municipal WWTP sludge		
	Identify the type of waste being land applied.	WWTP sludge		
INVESTIGATION FINDINGS				
1	Cumulative Loading Rate: Cumulative loading rate for each metal does not exceed applicable limit in Table 2 of 312.43(b)(2).	COMPLIANT		
2	Metal Concentration: Concentration of each metal in the sludge does not exceed applicable limit in Table 3 of 312.43(b)(3).	COMPLIANT		
3	Domestic Septage Application Rate: Annual application rate for domestic septage is equal to or less than the calculated annual application rate.	COMPLIANT		
4	Land Conditions: Sludge is not applied to flooded, frozen, or snow-covered land so that sludge enters a wetland or other waters in the state.	COMPLIANT		
BUFFER ZONE REQUIREMENTS:				
1	200 feet from surface waters if sludge is not incorporated within 48 hours and a vegetative cover is not established between the application area and all adjacent surface waters.	NOT APPLICABLE		
2	33 feet from surface waters if sludge is incorporated within 48 hours and a vegetative cover is not established between the application area and all adjacent surface waters.	NOT APPLICABLE		
3	150 feet from private water supply well.	NOT APPLICABLE		
4	500 feet from public water supply well, intake, public water supply spring or similar source, public water supply treatment plant or public water supply elevated or ground storage tank.	NOT APPLICABLE		
5	200 feet from solution channel, sinkhole or other conduit to groundwater.	NOT APPLICABLE		
6	750 feet from established school, institution, business or occupied residential structure.	NOT APPLICABLE		



7	50 feet from public right of way	NOT APPLICABLE		
8	10 feet from irrigation conveyance canal.	NOT APPLICABLE		
9	50 feet from property boundary.	NOT APPLICABLE		
	APPLICATION REQUIREMENTS:			
1	Application Rate: Whole sludge application rate is equal to or less than the agronomic rate, unless otherwise specified by TCEQ.	COMPLIANT		
	Water Table: Seasonal high ground water table is below the treatment zone at least:			
1A	3 feet for soils with permeability < 2in/hr.	NOT APPLICABLE		
1B	4 feet for soils with permeability > 2 in/hr and < 20 in/hr.	NOT APPLICABLE		
1C	If no, has a variance been authorized?	NOT APPLICABLE		
2	Uniform Application: Sludge is applied uniformly over the surface of the land.	COMPLIANT		
3	Permeable surface soils in the application area are at least 2 feet thick.	COMPLIANT		
4	If no, has a variance been authorized?	NOT APPLICABLE		
5	Wet Weather: Sludge is not applied during rainstorms or during periods in which surface soils are water-saturated.	COMPLIANT		
6	All slopes in the application area are 8% or less.	COMPLIANT		
7	If no, has a variance been authorized?	NOT APPLICABLE		
8	Sludge Runoff: If sludge runoff from the active application area is evident, the operator has ceased further sludge application until the condition is corrected.	COMPLIANT		
9	Floodway: Application area is not within a designated floodway.	COMPLIANT		



10	Debris: Sewage sludge debris has not blown or run off site boundaries or into surface waters.	COMPLIANT		
11	Dust and Odors: If necessary or when significant nuisance conditions occur, dust and objectionable odors are minimized.	COMPLIANT		
12	Staging of Sludge: Staging (temporary holding of sludge on site prior to land application) does not exceed seven calendar days.	COMPLIANT		
13	Storage of Sludge: If sludge is being stored (held at site longer than 7 calendar days), written authorization has been obtained from TCEQ.	COMPLIANT		
14	Pathogen Requirements: Pathogen requirements are met.	COMPLIANT		
15	Vector Attraction Reduction: Vector attraction reduction requirements are met.	COMPLIANT		
16	Record Keeping: Record keeping requirements are met.	COMPLIANT		
17	Pathogen reduction method used:	Fecal coliform sampling <2 million CFUs		
18	Vector attraction reduction method used:	38% volatile solids reduction.		







Texas Commission on Environmental Quality

WQ DOMESTIC CCI - INTERIM Checklist

Unit Name : WWTP 2
 Investigation # :1306558
 Facility Name : CITY OF MIDLAND WWTP

County : MIDLAND
 TCEQ Investigator : RAJESH ROY

Item No.	Description	Answer	Comments	Due Date
	GENERAL INFORMATION			
1	Does infiltration/inflow adversely affect the collection system and/or the WWTP?	COMPLIANT		
2	Has the treatment plant reached 75% or greater of the permitted daily flow for three consecutive months?	NO		
3	If yes, has the regulated entity taken action to comply with the 75/90 rule requirements?	COMPLIANT		
4	Has industrial waste caused plant upsets or permit noncompliance?	COMPLIANT		
5	Are certified operators with the proper certification levels operating the plant and the collection system?	COMPLIANT		
6	Is an RPZ backflow prevention device or an air gap installed on the main potable line to the WWTP and are atmospheric vacuum breakers installed on hose bibs? If there is an RPZ backflow prevention device is the device operated properly and tested annually?	COMPLIANT	Double check valve is used to prevent back flow	
7	Are adequate safeguards maintained to prevent the discharge of untreated or inadequately treated wastes during electrical power failure by means of alternate power sources, standby generators and/or retention structures?	COMPLIANT	They are on two separate grids from Sharyland Utilities.	
8	Has the regulated entity abandoned or closed any pit, tank, pond, lagoon, or surface impoundment regulated by the permit and appropriately notified the Executive Director at least 90 days prior to conducting such activity? If yes, has a closure plan been submitted?	NOT APPLICABLE		
	SLUDGE DISPOSAL			
9	Has the regulated entity disposed of sludge since the last investigation?	YES	They have a beneficial Use (Class B) authorization in their permit (see that checklist).	
10	Is the sludge disposed at a properly permitted or registered site?	COMPLIANT		
11	Is sludge handled properly?	COMPLIANT		



12	Is sludge analysis conducted for all the required parameters?	COMPLIANT	
13	Is the sludge tested at the required frequency?	COMPLIANT	
14	Are pathogen controls met?	COMPLIANT	
15	Are vector attraction reduction requirements met?	COMPLIANT	
16	Are the annual sludge reports submitted, as required by the permit?	COMPLIANT	
17	Are adequate sludge disposal records maintained?	COMPLIANT	
	TREATMENT UNITS PROPERLY OPERATED AND MAINTAINED:		
1	Collection System?	COMPLIANT	
2	On site lift station/wet well?	COMPLIANT	
3	Bar screen/fine screens/comminutor?	COMPLIANT	
4	Grit chamber?	COMPLIANT	
5	Are the screenings/grit disposed of properly?	COMPLIANT	
6	Equalization basin(s) or tank(s)?	NOT APPLICABLE	
7	Aeration basin(s) or tank(s)?	COMPLIANT	
8	Blowers/mechanical aerators?	COMPLIANT	
9	Pond(s)/Lagoon(s)?	COMPLIANT	
10	Imhoff Tanks?	NOT APPLICABLE	



11	Rotating Biological Contactors (RBCs)?	NOT APPLICABLE		
12	Trickling filter(s) or Rock/reed filter(s)?	NOT APPLICABLE		
13	Constructed wetland?	NOT APPLICABLE		
14	Clarifier(s)?	COMPLIANT		
15	Chlorination system?	NOT APPLICABLE		
16	Dechlorination system?	NOT APPLICABLE		
17	Chlorine contact basin(s)?	NOT APPLICABLE		
18	Ultraviolet (U.V.) Disinfection System?	NOT APPLICABLE		
19	Mechanical filtration (sand filters, porous media filters, etc.)?	NOT APPLICABLE		
20	Digester(s)?	COMPLIANT		
21	Sludge thickener(s)?	COMPLIANT		
22	Drying bed(s)?	NOT APPLICABLE		
23	Belt, filter, plate & frame press(es) or centrifuge(s)?	NOT APPLICABLE		
24	Building and grounds maintenance?	COMPLIANT		
25	Any other treatment units not mentioned above?	NOT APPLICABLE		
26	Are all standby, duplicate, backup or auxiliary units provided as required?	COMPLIANT		
	CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS			



26A	Has the POTW taken the necessary steps to control the discharge of significant or categorical sources of pollutants into the treatment facility?	COMPLIANT		
26B	Has the POTW required any categorical indirect discharger to the treatment facility to comply with the pretreatment reporting requirements as outlined in RG 401?	COMPLIANT		
26C	Has the POTW provided adequate notification to the TCEQ of any new introduction of pollutants from an indirect discharger that is subject to pretreatment requirements?	COMPLIANT		
27	Were there any other violations? If yes, list each below:	NO		
28	Item 1	NOT APPLICABLE		
29	Item 2	NOT APPLICABLE		
30	Item 3	NOT APPLICABLE		
31	Item 4	NOT APPLICABLE		
32	Item 5	NOT APPLICABLE		



Texas Commission on Environmental Quality

WQ EMERGENCY POWER INITIATIVE Checklist

Unit Name : WWTP 3 Investigation # :1306558 Facility Name : CITY OF MIDLAND WWTP	County : MIDLAND TCEQ Investigator : RAJESH ROY
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Item No.	Description	Answer	Comments	Due Date
1	Does the facility maintain adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, and/or retention of inadequately treated wastewater. If compliant, answer all questions 2 thru 5 below. (this answers #7 and #25 on WQ Domestic CCI and #7 on WQ Focused WWTP Maintenance checklist)	COMPLIANT		
2	Is the facility using electrical service from 2 separate commercial power companies with automatic switchover capabilities in effect as alternate power sources as a safeguard to prevent discharge of untreated or inadequately treated wastes during electrical power failures?	NO		
3	Is the facility using electrical service from 2 independent feeder lines or substations of the same electric utility with automatic switchover capabilities in effect as alternate power sources as a safeguard to prevent discharge of untreated or inadequately treated wastes during electrical power failures?	YES		
4	Is the facility using standby generators as a safeguard to prevent discharge of untreated or inadequately treated wastes during electrical power failures?	NO		
5	Is the facility using retention as a safeguard to prevent discharge of untreated or inadequately treated wastes during electrical power failures?	NO		







Texas Commission on Environmental Quality

WQ GENERAL CCI CHECKLIST Checklist

Unit Name : WWTP 4
 Investigation # :1306558
 Facility Name : CITY OF MIDLAND WWTP

County : MIDLAND
 TCEQ Investigator : RAJESH ROY

Item No.	Description	Answer	Comments	Due Date
	PERMIT VERIFICATION			
1	Is the facility operating with a current TPDES permit?	COMPLIANT		
2	Is the correct name on the permit? If no, has a name change or permit transfer request been submitted? (if no, list the correct name.)	COMPLIANT		
3	Is the current mailing address the same as listed on the permit? (If no, has a change of address been submitted?)	YES		
	OVERALL FACILITY/TREATMENT SYSTEM			
4	Has proper notification (engineering plans and specifications) for plant/collection system modifications been submitted, as required?	COMPLIANT		
5	Have unauthorized discharges occurred at the plant or in the collection system since the last CCI?	COMPLIANT		
6	If yes, has the TCEQ been notified, as required?	COMPLIANT		
7	Has adequate corrective action been taken to prevent additional unauthorized discharges?	COMPLIANT		
	INVESTIGATION SAMPLE RESULTS			
8	Were region collected samples compliant with the permit limits (except pH, DO and Cl2 minimum)?	NOT EVALUATED		
9	Were region collected samples compliant with the permit limits for pH, DO and Cl2 minimum?	COMPLIANT	pH is the only parameter - it was collected.	
	FLOW MEASUREMENT			
10	Does the regulated entity accurately measure the flow according to the permit requirement (sample type)?	COMPLIANT		



11	Are the flow measuring devices(s) properly installed, operated and maintained?	COMPLIANT		
12	Is the head measured at the proper location?	COMPLIANT	There is no primary measurement device, so a flow accuracy check cannot be performed.	
13	Are the secondary flow measuring devices calibrated annually or more frequently, if needed?	COMPLIANT		
14	Is the percent error between the recorded flow and the calculated flow within 10%?	COMPLIANT	There is no primary measurement device, so a flow accuracy check cannot be performed.	
15A	Is the flow measuring equipment adequate to handle the entire flow range?	COMPLIANT		
	SELF-MONITORING			
16	Is the regulated entity compliant with flow limits?	COMPLIANT		
17	Is the regulated entity compliant with the self-monitored effluent limitations?	COMPLIANT		
18	Are samples collected at the location(s) specified in the permit?	COMPLIANT		
19	Are the correct type of samples collected (grab or composite)?	COMPLIANT		
20	Are flow-proportional samples collected when required by the permit?	NOT APPLICABLE		
21	Are sampling and analyses completed on the parameters specified in the permit?	COMPLIANT		
22	Are sampling and analyses performed at the frequency specified in the permit?	COMPLIANT		
23	Are the proper sampling procedures and containers used?	COMPLIANT		
24	Are the samples preserved and stored properly?	COMPLIANT		
25	Are the samples analyzed within the holding times?	COMPLIANT		
25A	Are the correct sample types collected for biomonitoring tests?	NOT APPLICABLE		



25B	Are the biomonitoring tests analyzed within the required holding times?	NOT APPLICABLE		
	RECORD KEEPING AND REPORTING			
26	Were the required records maintained and available for review during the investigation?	COMPLIANT		
27	Are adequate sampling records maintained (date, time, location, person, etc.)?	COMPLIANT		
28	Are chain of custody tags completed properly and maintained?	COMPLIANT		
29	Are operations and maintenance records maintained?	COMPLIANT		
30	Are process control records maintained?	COMPLIANT		
31	Are the analytical results consistent with data reported on the DMRs and MERs?	COMPLIANT	This TLAP facility is not required to self-report. Additionally, there is no mass-based parameters in the permit (for loading calculations).	
32	Are effluent loadings calculated correctly?	COMPLIANT	This TLAP facility is not required to self-report. Additionally, there is no mass-based parameters in the permit (for loading calculations).	
33	Are monthly effluent reports or discharge monitoring reports completed accurately, submitted and are copies maintained?	COMPLIANT	This TLAP facility is not required to self-report. Additionally, there is no mass-based parameters in the permit (for loading calculations).	
34	Is noncompliance notification submitted as required by the permit?	COMPLIANT		
	LABORATORY PROCEDURES/ QA/QC RECORDS			
35	Are calibration and maintenance records adequate for any analytical equipment used?	COMPLIANT		
36	Are temperature logs maintained where required?	COMPLIANT		
37	Are the proper analytical methods and techniques used for the sample analyses?	COMPLIANT		
38	Are the appropriate records for Quality Assurance/Quality Control procedures maintained?	COMPLIANT		
	RECEIVING WATER			



39	Does the receiving stream have such conditions as foaming, floating materials, sludge deposits, or color and turbidity?	COMPLIANT		
	OTHER COMMENTS			
40	Is the regulated entity compliant with the Other Permit Requirements?	COMPLIANT		
41	Were there any other violations/deficiencies noted? (If yes, list each as an item in following questions.)	NO		
42	ITEM	NOT APPLICABLE		
43	ITEM	NOT APPLICABLE		
44	ITEM	NOT APPLICABLE		
45	ITEM	NOT APPLICABLE		
46	ITEM	NOT APPLICABLE		
47	ITEM	NOT APPLICABLE		
48	ITEM	NOT APPLICABLE		
49	ITEM	NOT APPLICABLE		
50	ITEM	NOT APPLICABLE		
51	ITEM	NOT APPLICABLE		



Texas Commission on Environmental Quality

WQ IN-HOUSE LABORATORY COMPLIANCE INVESTIGATION Checklist

Unit Name : WWTP 5 Investigation # :1306558 Facility Name : CITY OF MIDLAND WWTP	County : MIDLAND TCEQ Investigator : RAJESH ROY
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Item No.	Description	Answer	Comments	Due Date
	APPLICABILITY			
1	If there is an in-house laboratory is it NELAC accredited? If yes, stop here. TWC 5.134 ; 30 TAC 25.4	NO		
2	If there is no in-house laboratory, does the facility use a NELAC accredited contract laboratory for analytical data reported to the agency? If applicable, stop here. TWC 5.134 (a)	NOT APPLICABLE		
3	If there is an exempt in-house laboratory, does it perform analyses only for its own reporting to the TCEQ? If the answer is no, please refer the in-house laboratory to the TCEQ Field Operations Support Division, Laboratory Accreditation Workgroup, MC 176. TWC 5.134 (e); 30 TAC 25.4 (c)	COMPLIANT		
	LABORATORY CONDITION AT TIME OF INVESTIGATION			
1	Does the laboratory utilize approved methods? 30 TAC 319.11	COMPLIANT		
2	Do observations and laboratory records indicate compliance with proper sampling and analysis protocols? 30 TAC 319.11	COMPLIANT		
3	Does the laboratory appear to be compliant with self-monitoring and self reporting requirements? 30 TAC 319.11	COMPLIANT		
4	Were there any concerns noted regarding analytical parameters evaluated at the time of the investigations? 30 TAC 319.11	COMPLIANT		
5	Were there any concerns noted regarding the laboratory's QA/QC program? 30 TAC 319.6	COMPLIANT		
6	Item #1	COMPLIANT		
7	Item #2	COMPLIANT		







Texas Commission on Environmental Quality

WQ INVESTIGATION - EQUIPMENT MONITORING AND SAMPLING revised 06/2013 Checklist

Unit Name : WWTP 6
 Investigation # :1306558
 Facility Name : CITY OF MIDLAND WWTP

County : MIDLAND
 TCEQ Investigator : RAJESH ROY

Item No.	Description	Answer	Comments	Due Date
	EQUIPMENT MONITORING SECTION			
1	Was an Anemometer used during this investigation?	NO		
2	Was the Area RAE Multi-Gas Monitor used during this investigation?	NO		
3	Was the Civil Defense V-700 Radiation Survey Instrument used during this investigation?	NO		
4	Was the DataRAM(TM) Real-Time Aerosol Monitor used during this investigation?	NO		
5	Was the Dissolved Oxygen Meter used during this investigation?	NO		
6	Was the Drager Gas Detector Pump/Tube System used during this investigation?	NO		
7	Was the El Paso Method for Measurement of Air-Strippable VOCs in Water used during this investigation?	NO		
8	Was the Garmin GPSMap 60CS GPS Receiver used during this investigation?	NO		
9	Was the Garmin RINO 130 GPS Receiver used during this investigation?	NO		
10	Was the GAS FindIR used during this investigation?	NO		
11	Was the Hach Model 2100P Portable Turbidimeter used during this investigation?	NO		
12	Was the Hach Pocket Colorimeter used during this investigation?	NO		
13	Was the Hach Pocket Turbidimeter used during this investigation?	NO		



14	Was the Haz-Dust 5000 Environmental Particulate Air Monitor (EPAM) used during this investigation?	NO	
15	Was the Hydrolab DataSonde® 4 and Hydrolab MiniSonde® Water Quality Multiprobes used during this investigation?	NO	
16	Was the IDEXX Collert® and IDEXX Enterolert® Methods used during this investigation?	NO	
17	Was the Jerome 631-X Hydrogen Sulfide (H2S) Analyzer used during this investigation?	NO	
18	Was the LANDTEC GEM 2000(TM) Landfill Gas Analyzer used during this investigation?	NO	
19	Was the Ludlum Model 14C Geiger Mueller (GM) counter used during this investigation?	NO	
20	Was the Ludlum Model 19 Micro R Meter used during this investigation?	NO	
21	Was the Marsh-McBirney Flo-Mate 2000 Electromagnetic Flow Meter used during this investigation?	NO	
22	Was the MiniRAE 2000 Photoionization Detector used during this investigation?	NO	
23	Was the MIRAN 205B SapphiRe Portable Infrared Ambient Analyzer used during this investigation?	NO	
24	Was the MSA Passport® PID II Organic Vapor Monitor used during this investigation?	NO	
25	Was the Multi-parameter Water Quality Monitoring Sonde and Display used during this investigation?	NO	
26	Was the MultiRAE Plus Multi-Gas Monitor used during the investigation?	NO	
27	Was the Niton® XLt 700 Series X-Ray Fluorescence (XRF) Environmental Analyzer used during this investigation?	NO	
28	Was the ORS Interface Probe(TM) used during this investigation?	NO	
29	Was the pH Meter used during this investigation?	YES	HACH EC10 Portable pH meter
30	Was the Portable Organic Vapor Monitor (OVM) Photoionization Detector used during this investigation?	NO	



31	Was the Pressure Gauge used during this investigation?	NO		
32	Was the Pressure Recorder used during this investigation?	NO		
33	Was the QRAE Multi-gas Monitor used during this investigation?	NO		
34	Was the Sample Collection of VOCs in Ambient Air Using Passivated, Stainless Steel Canisters used during this investigation?	NO		
35	Was the Sampling of Microscopic Characterization used during this investigation?	NO		
36	Was the Self Contained Breathing Apparatus (SCBA) used during this investigation?	NO		
37	Was the Smith-Root Boat Mounted and Backpack Electrofishers used during this investigation?	NO		
38	Was the Sontek Flowtracker used during this investigation?	NO		
39	Was the TESTO 350 Portable Flue Gas Analyzer used during this investigation?	NO		
40	Was the Toxic Vapor Analyzer (TVA) 1000B Flame Ionization Detector (FID) used during this investigation?	NO		
41	Was the TravellIR Portable FT-IR Infrared Analysis System used during this investigation?	NO		
42	Was the VRAE Multi Gas Monitor used during this investigation?	NO		
43	Was the Water Level Indicator used during this investigation?	NO		
44	Was the Weatherpak 2000 used during this investigation?	NO		
45	Was any other equipment used during this investigation that is not listed above? If YES, list the equipment in the Comment section.	NO		
	SAMPLING SECTION			
1	Was there sampling conducted for Effluent?	NO		



2	Was there sampling conducted for Groundwater?	NO		
3	Was there sampling conducted for Leachate/Contaminated Water?	NO		
4	Was there sampling conducted for PWS Chemical?	NO		
5	Was there sampling conducted for Sediment/Soil?	NO		
6	Was there sampling conducted for Spills/Unauthorized Discharge?	NO		
7	Was there sampling conducted for Surface Water?	NO		
8	Was there any other type of sampling conducted during this investigation? If YES, include it in the Comment section.	NO		



Texas Commission on Environmental Quality

WQ LAND APPLICATION CHECKLIST Checklist

Unit Name : WWTP 7
 Investigation # :1306558
 Facility Name : CITY OF MIDLAND WWTP

County : MIDLAND
 TCEQ Investigator : RAJESH ROY

Item No.	Description	Answer	Comments	Due Date
1	Is the irrigated area the same area described and listed in the permit?	COMPLIANT		
2	Are irrigation practices designed and managed to prevent ponding of final effluent or contamination of ground and surface waters?	COMPLIANT		
3	Are irrigation practices designed and managed to prevent the occurrence of nuisance conditions in the area?	COMPLIANT		
4	If tailwater control facilities are necessary to prevent the discharge of any treated wastewater from the irrigated land, are sufficient, well-maintained tailwater control facilities available at the irrigation field?	COMPLIANT		
5	Is treated wastewater applied to the irrigation field only when there are no rainfall events or when the ground is not frozen or saturated?	COMPLIANT		
6	Is treated wastewater applied to the irrigation field at or below the permitted application rate?	COMPLIANT		
7	Has the permittee provided equipment which measures application rates and maintains accurate records of the volume of final effluent applied to the irrigation field?	COMPLIANT		
8	Does the permittee maintain records of the application rates for three years?	COMPLIANT		
9	Do the holding ponds conform to the "Design Criteria for Sewerage Systems" requirements for stabilization ponds with regard to construction and levee design?	COMPLIANT		
10	Do the holding ponds have a minimum of 2 feet of freeboard at the time of the investigation?	COMPLIANT		
11	Are the holding ponds well maintained with regard to erosion control?	COMPLIANT		
12	Are the holding ponds well maintained with regard to weed and tree control?	COMPLIANT		
13	Are annual soil samples being collected and analyzed each year?	COMPLIANT		
14	Is each soil boring separated into three samples according to the following depth zones: 0 to 6 inches, 6 to 18 inches, and 18 to 30 inches below the ground surface?	COMPLIANT		



15	Are the soil samples analyzed for pH, total nitrogen, potassium, phosphorus and conductivity?	COMPLIANT		
16	Are the results of the soil samples submitted to the TCEQ Regional Office and to the Water Quality Compliance Monitoring Team of the Enforcement Division during September of each year?	COMPLIANT		
17	Does the permittee maintain a long-term contract with the owner of the land application site which is authorized for use in the permit, or own the land authorized for land application of treated effluent?	COMPLIANT		
18	If rechlorination of the final effluent, prior to entering the irrigation system, is required in the permit, then, does the permittee maintain a trace chlorine residual in the final effluent at the point of irrigation application?	NOT APPLICABLE		
19	Does the permittee have an adequate number of signs erected stating the irrigation water is from a non-potable water supply?	COMPLIANT		
20	Do the non-potable water supply signs consist of a red slash superimposed over the international symbol of drinking water accompanied by the message "DO NOT DRINK THE WATER" in both English and Spanish?	COMPLIANT		
21	Is all piping transporting the final effluent clearly marked with non-potable water supply signs?	COMPLIANT		
22	Are spray fixtures for the irrigation system of such design that they cannot be operated by unauthorized personnel?	COMPLIANT		
23	Is final effluent only applied to the land application site when the area is not in use?	COMPLIANT		
24	Are permanent transmission lines installed from the holding pond to each tract of land to be irrigated utilizing final effluent from that pond?	COMPLIANT		
25	Are the holding ponds for the retention of treated or untreated wastewater adequately lined to control seepage?	COMPLIANT		
26	Does the permittee comply with the requirements of 30 TAC Section 309.13 (a) - (e)?	COMPLIANT		
27	Has the permittee prevented cross-connection with a potable water supply system?	COMPLIANT		
28	Is the cover crop of the irrigation field harvested a minimum of once per year?	COMPLIANT		
29	Were there any other violations noted? If yes, list below:	NO		
30	Item one:	NOT APPLICABLE		
31	Item two:	NOT APPLICABLE		