

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

FCE Summary Report

Facility : PINE TREE ACRES, INC.	SRN : N5984
Location : 36600 29 MILE RD.	District : Warren
	County : MACOMB
City : LENOX State: MI Zip Code : 48048	Compliance Status : Compliance
Source Class : MAJOR	Staff : Robert Joseph
FCE Begin Date : 9/28/2018	FCE Completion Date : 6/18/2020
Comments : Summary generated since last FCE (09/27/18)	

List of Partial Compliance Evaluations :

Activity Date	Activity Type	Compliance Status	Comments
06/18/2020	Scheduled Inspection	Compliance	Scheduled inspection of landfill.
05/21/2020	NSPS (Part 60)	Non Compliance	Decommission: Wells EW 005, EW 525, HC 169, HC 498. Decommission due to inconsistent landfill gas capture. VN may be issued for reporting depending on further information received. Wells HC 578, 579, 581. HOV Temperature (145 F). Wells running above 131 F since Feb. and March. Add. Info requested on 05/07/20. VN may be issued for reporting depending on further information received.

05/19/2020	Stack Test	Compliance	<p>ROP 5-year renewal test along with yearly NSPS JJJJ.</p> <p>Test Dates were Jan. 14, 20-24, 27, 2020.</p> <p>Stack Test Report for EU-FLARE 3, EU-FLARE 4, EU-FLARE 5 and EU-ICENGINE 1 through EU-ICENGINE 4.</p> <p>EU-FLARE 3 and EU-FLARE 5: 0% Visible Emission (Permit limit 0%...except for periods not to exceed a total of five minutes during any two consecutive hours).</p> <p>EU-FLARE 4: Opacity = 0% (Permit Limit = 20% for 6-min average). CO emission rate = 0.08 lb/MMBtu (Permit Limit = 0.2) NOx emission rate = 0.05 lb/Btu (Permit Limit = 0.06). VOC emission rate = 0.54 ppmvd (Permit Limit = 20 ppmvd as hexane at 3% oxygen). SO2 emission rate = 3.13 lb/hr (Permit Limit = 8.1). PM emission rate = 0.63 lb/hr (Permit Limit = 1.4). PM10 emission rate = 1.02 lb/hr (Permit Limit = 1.4). Combustion zone temperature: 1,638 F Fuel flowrate: 2,625 ft3/min LFG methane content: 54.2% LFG Lower heating value: 493 Btu/ft3 Exhaust temperature: 1,633 F</p> <p>Engine 1: Cat Model: G3520C Generator Output: 1624 kW. Engine Output: 2269 bhp. Fuel Use: 533 ft3 Inlet Pressure: 45.6 psi Air-to-fuel-ratio: 7.6 LFG CH4 Content: 52.2%, LFG Btu Content: 475 Btu/ft3 Exhaust Temp: 957 F. CO emission rate: 10.4 lb/hr (Permit Limit 16.3), 2.08 g/bhp-hr (Permit Limit 3.3). NOx emission rate: 2.15 lb/hr (Permit Limit 3.0), 0.43 g/bhp-hr (Permit Limit 0.6). VOC emission rate: 0.42 lb/hr (Permit Limit 1.0). SO2 emission rate: 1.18 lb/hr</p>
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05/19/2020	Stack Test	Compliance	<p>(Permit Limit 1.57). HCOH emission rate: 1.58 lb/hr (Permit Limit 2.07). PM/PM10 emission rate: 0.35 lb/hr (Permit Limit 1.2), 0.07 g/bhp-hr (Permit Limit 0.24). Visible Emission rate: 0% (10% per 6 min. avg.).</p> <p>Engine 2: Cat Model: G3520C Generator Output: 1627 kW. Engine Output: 2273 bhp. Fuel Use: 535 ft3 Inlet Pressure: 46.4 psi Air-to-fuel-ratio: 7.8 LFG CH4 Content: 52.0%, LFG Btu Content: 473 Btu/ft3 Exhaust Temp: 934 F. CO emission rate: 10.5 lb/hr (Permit Limit 16.3), 2.10 g/bhp-hr (Permit Limit 3.3). NOx emission rate: 2.30 lb/hr (Permit Limit 3.0), 0.46 g/bhp-hr (Permit Limit 0.6). VOC emission rate: 0.58 lb/hr (Permit Limit 1.0). SO2 emission rate: 1.12 lb/hr (Permit Limit 1.57). HCOH emission rate: 1.51 lb/hr (Permit Limit 2.07). PM/PM10 emission rate: 0.37 lb/hr (Permit Limit 1.2), 0.07 g/bhp-hr (Permit Limit 0.24). Visible Emission rate: 0% (10% per 6 min. avg.).</p> <p>Engine 3: Cat Model: G3520C Generator Output: 1630 kW. Engine Output: 2276 bhp. Fuel Use: 534 ft3 Inlet Pressure: 47.4 psi Air-to-fuel-ratio: 8.2 LFG CH4 Content: 52.4%, LFG Btu Content: 477 Btu/ft3 Exhaust Temp: 931 F. CO emission rate: 12.4 lb/hr (Permit Limit 16.3), 2.47 g/bhp-hr (Permit Limit 3.3). NOx emission rate: 2.14 lb/hr (Permit Limit 3.0), 0.43 g/bhp-hr (Permit Limit 0.6). VOC emission rate: 0.74 lb/hr (Permit Limit 1.0). SO2 emission rate: 1.15 lb/hr (Permit Limit 1.57). HCOH emission rate: 1.58 lb/hr (Permit Limit 2.07). PM/PM10 emission rate: 0.46 lb/hr (Permit Limit 1.2), 0.09 g/bhp-hr</p>
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05/19/2020	Stack Test	Compliance	<p>(Permit Limit 0.24). Visible Emission rate: 0% (10% per 6 min. avg.).</p> <p>Engine 4: Cat Model: G3520C Generator Output: 1626 kW. Engine Output: 2272 bhp. Fuel Use: 537 ft3 Inlet Pressure: 46.4 psi Air-to-fuel-ratio: 7.7 LFG CH4 Content: 52.3%, LFG Btu Content: 476 Btu/ft3 Exhaust Temp: 953 F. CO emission rate: 10.9 lb/hr (Permit Limit 16.3), 2.17 g/bhp-hr (Permit Limit 3.3). NOx emission rate: 2.01 lb/hr (Permit Limit 3.0), 0.40 g/bhp-hr (Permit Limit 0.6). VOC emission rate: 0.54 lb/hr (Permit Limit 1.0). SO2 emission rate: 1.34 lb/hr (Permit Limit 1.57). HCOH emission rate: 1.71 lb/hr (Permit Limit 2.07). PM/PM10 emission rate: 0.61 lb/hr (Permit Limit 1.2), 0.12 g/bhp-hr (Permit Limit 0.24). Visible Emission rate: 0% (10% per 6 min. avg.).</p>
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05/19/2020	Stack Test	Compliance	<p>ROP 5-year renewal test along with yearly NSPS JJJJ.</p> <p>Test Dates were Jan. 14, 20-24, 27, 2020. May 14, 2020.</p> <p>EU-ICENGINE 5 through EU-ICENGINE 8.</p> <p>Engine 5: Cat Model: G3520C Generator Output: 1627 kW. Engine Output: 2273 bhp. Fuel Use: 547 ft3 Inlet Pressure: 47.9 psi Air-to-fuel-ratio: 7.6 LFG CH4 Content: 52.4%, LFG Btu Content: 477 Btu/ft3 Exhaust Temp: 946 F. CO emission rate: 11.4 lb/hr (Permit Limit 16.3), 2.27 g/bhp-hr (Permit Limit 3.3). NOx emission rate: 2.05 lb/hr (Permit Limit 3.0), 0.41 g/bhp-hr (Permit Limit 0.6). VOC emission rate: 0.52 lb/hr (Permit Limit 1.0). SO2 emission rate: 1.18 lb/hr (Permit Limit 1.57). HCOH emission rate: 1.65 lb/hr (Permit Limit 2.07). PM/PM10 emission rate: 0.56 lb/hr (Permit Limit 1.2), 0.11 g/bhp-hr (Permit Limit 0.24). Visible Emission rate: 0% (10% per 6 min. avg.).</p> <p>Engine 6: Cat Model: G3520C Generator Output: 1637 kW. Engine Output: 2286 bhp. Fuel Use: 536 ft3 Inlet Pressure: 46.0 psi Air-to-fuel-ratio: 7.8 LFG CH4 Content: 52.3%, LFG Btu Content: 476 Btu/ft3 Exhaust Temp: 951 F. CO emission rate: 9.75 lb/hr (Permit Limit 16.3), 1.93 g/bhp-hr (Permit Limit 3.3). NOx emission rate: 2.03 lb/hr (Permit Limit 3.0), 0.40 g/bhp-hr (Permit Limit 0.6). VOC emission rate: 0.44 lb/hr (Permit Limit 1.0). SO2 emission rate: 1.19 lb/hr (Permit Limit 1.57). HCOH emission rate: 1.49 lb/hr (Permit Limit 2.07). PM/PM10 emission rate: 0.47 lb/hr (Permit Limit 1.2), 0.09 g/bhp-hr</p>
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05/19/2020	Stack Test	Compliance	<p>(Permit Limit 0.24). Visible Emission rate: 0% (10% per 6 min. avg.).</p> <p>Engine 7: Cat Model: G3520C Generator Output: 1643 kW. Engine Output: 2295 bhp. Fuel Use: 557 ft3 Inlet Pressure: 46.9 psi Air-to-fuel-ratio: 7.4 LFG CH4 Content: 51.4%, LFG Btu Content: 468 Btu/ft3 Exhaust Temp: 953 F. CO emission rate: 10.8 lb/hr (Permit Limit 16.3), 2.13 g/bhp-hr (Permit Limit 3.3). NOx emission rate: 2.09 lb/hr (Permit Limit 3.0), 0.41 g/bhp-hr (Permit Limit 0.6). VOC emission rate: 0.52 lb/hr (Permit Limit 1.0). SO2 emission rate: 1.38 lb/hr (Permit Limit 1.57). HCOH emission rate: 1.72 lb/hr (Permit Limit 2.07). PM/PM10 emission rate: 0.44 lb/hr (Permit Limit 1.2), 0.09 g/bhp-hr (Permit Limit 0.24). Visible Emission rate: 0% (10% per 6 min. avg.).</p> <p>Engine 8: Cat Model: G3520C Generator Output: 1628 kW. Engine Output: 2274 bhp. Fuel Use: 545 ft3 Inlet Pressure: 46.9 psi Air-to-fuel-ratio: 7.4 LFG CH4 Content: 52.5%, LFG Btu Content: 478 Btu/ft3 Exhaust Temp: 951 F. CO emission rate: 11.4 lb/hr (Permit Limit 16.3), 2.26 g/bhp-hr (Permit Limit 3.3). NOx emission rate: 2.07 lb/hr (Permit Limit 3.0), 0.41 g/bhp-hr (Permit Limit 0.6). VOC emission rate: 0.65 lb/hr (Permit Limit 1.0). SO2 emission rate: 1.25 lb/hr (Permit Limit 1.57). HCOH emission rate: 1.87 lb/hr (Permit Limit 2.07). PM/PM10 emission rate: 0.52 lb/hr (Permit Limit 1.2), 0.10 g/bhp-hr (Permit Limit 0.24). Visible Emission rate: 0% (10% per 6 min. avg.).</p>
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Activity Date	Activity Type	Compliance Status	Comments
05/15/2020	ROP SEMI 2 CERT	Non Compliance	<p>Semi-annual Deviation Report. Time period July 1, 2019 - December 31, 2019.</p> <p>EUALGCS: 146 well exceedances for temperature, pressure, oxygen. 55 could not resolved within 15 calendar days. There was no time when the collection system was not in operation in excess of five days. PTA added 35 new vertical and 28 horizontal wells during this time period along with associated header and lateral conveyance piping. VN may be issued for reporting depending on further information received.</p> <p>FGOPENFLARES: No exceedances. PTA does not have a bypass of the control system so landfill gas was not discharged directly to the ambient air.</p> <p>EUTREATMENTSYS and FGOPENFLARES: PTA notes 0 time when the systems were simultaneously down for more than 1 hour.</p> <p>FGENGINES: There were no known problems with fuel flow meters.</p> <p>EU-LANDFILL: There were (58) locations that initially exceeded 500 ppm during the 3rd quarter scan. There were (13) locations that exceeded 500 ppm during the 4th quarter scan. Based on the re-monitoring results the exceedance locations were successfully remediated.</p> <p>FG-ENGINES: The flow to 8 engines was 613,496 MCF with a heating value 505 BTU/SCF. The heating value is based on a methane concentration of 49.7 and the higher heating value of methane of 1,012 BTU/ft3.</p>

Activity Date	Activity Type	Compliance Status	Comments
05/15/2020	NSPS (Part 60)	Non Compliance	<p>NSPS XXX Annual Report. November 1, 2019-December 31, 2019 (continued from November 18, 2019 initial report).</p> <p>The facility was issued a permit to construct a landfill expansion on 05/08/15 and commenced construction of the expansion on 05/15/15. An initial design capacity and NMOC emission rate report was submitted 11/23/16 and a GCCS design plan was submitted on 11/17/17. The subpart XXX monitoring and recordkeeping requirements became effective on 05/23/19.</p> <p>50 wells exhibited either a pressure or temperature exceedance during this reporting period. There were 13 surface methane exceedances during this period which were corrected upon recheck. The facility installed 63 wells during the reporting period July 8, 2019- November 13, 2019. VN may be issued for reporting depending on further information received.</p>
05/15/2020	ROP Other	Compliance	<p>Startup, Shutdown, and Malfunction (SSM) Semi-Annual Report. July 1, 2019 - December 31, 2019.</p> <p>Start-up events: (126) gas collection and control system events occurred. All were consistent with the SSM plan.</p> <p>Shutdown events: (0) gas collection and control system events occurred.</p> <p>Malfunction events: (0) gas collection and control system events occurred.</p> <p>There were no plan revisions.</p>
05/14/2020	ROP Other	Compliance	Asbestos notification for disturbance set to begin on 04-17-20 through 12-31-20.
05/04/2020	MAERS	Compliance	MAERS Report Submission
05/04/2020	MAERS	Compliance	MAERS Certification form received March 16, 2020.

Activity Date	Activity Type	Compliance Status	Comments
04/07/2020	NSPS (Part 60)	Compliance	<p>Decommission: Wells HV 266 and HC 356. Decommission due to gas well expansion and were interim toe-of-slope wells, and poor collectors.</p> <p>Wells: HC 169 and HC 498. HOV Oxygen. Approved only to be shut off and turned on to relieve gas pressure. Extension on HC 498 from 12/10/19.</p> <p>Wells: HC 583, 584, 580, 591. HOV Temperature (145 F). Extensions for HC 580 and HC 591 from 12/10/19 and HC 583 and HC 584 from 08/16/19 submittals.</p>
03/26/2020	NSPS (Part 60)	Compliance	<p>Decommission: HV 234, HV 235, HC 344, 351, 361, 456. Decommission due to gas well expansion and were interim toe-of-slope wells, and poor collectors.</p>
01/27/2020	NSPS (Part 60)	Compliance	<p>Wells: EW 383, 509, 556, 591, 599, 601, and HC 549, 554, 580. HOV Temperature (145 F). Extension for these extraction wells are from Nov. 2017, Jan. and May 2019 (HC 549 and 554 are new).</p> <p>Wells: HC 428, 445, 498. HOV Oxygen and Positive Pressure. Shallow toe of slope collectors and on leachate collection layer to control methane migration. All 4 are extensions from Mar. and Aug. 2018</p>

Activity Date	Activity Type	Compliance Status	Comments
10/30/2019	Other Non ROP	Compliance	<p>Engine swap per rule 285(a)(vi).</p> <p>ENGINE #4: OUT is engine (GZJ00466) for rebuild/overhaul and IN is engine (GZJ00464) which was #2 which has 60,090 hrs swapped 06-04-19. Previous test hours was 58,668.5 on 02/14/19. 1,421.5 hrs since last test and 7,338.5 hrs until next test in 305.8 days.</p> <p>ENGINE #7: OUT is engine (GZJ00463) for rebuild/overhaul and IN is engine (GZJ00467) which was #3 which has 60,090 hrs swapped on 06-04-19. Previous test hours was 59,039.2 on 02/12/19. 1,928.9 hrs since last test and 6,831.1 hrs until next test in 284.6 days.</p>
10/22/2019	NSPS (Part 60)	Compliance	<p>Wells HC 428, 445, 498. HOV Oxygen and Positive Pressure. Shallow toe of slope collectors and on leachate collection layer to control methane migration.</p> <p>Wells: EW 383, 509, 556, 591, 599, 601, and HC 580. HOV Temperature (145 F). Extension for these extraction wells are from Nov. 2017.</p>
09/24/2019	ROP Other	Compliance	<p>Startup, Shutdown, and Malfunction (SSM) Semi-Annual Report. January 1, 2019 - June 30, 2019.</p> <p>Start-up events: (43) gas collection and control system events occurred. All were consistent with the SSM plan.</p> <p>Shutdown events: (0) gas collection and control system events occurred.</p> <p>Malfunction events: (1) gas collection and control system events occurred.</p> <p>There were no plan revisions.</p>

Activity Date	Activity Type	Compliance Status	Comments
09/24/2019	ROP Semi 1 Cert	Compliance	<p>Semi-annual Deviation Report. Time period January 1, 2019 - June 30, 2019.</p> <p>EUALGCS: 104 well exceedances for temperature, pressure, oxygen. 59 could not resolved within 15 calendar days. Facility expanded the gas collection by adding new wells. The system was never down for more than 5 days.</p> <p>FGOPENFLARES: No exceedances</p> <p>EUTREATMENTSYS and FGOPENFLARES: PTA notes 1 time when the systems were simultaneously down for more than 1 hour (1.9 hours).</p> <p>FGENGINES: There were no known issues with fuel flow meters.</p> <p>EU-LANDFILL: There were (6) locations that initially exceeded 500 ppm during the 1st quarter scan. There were (6) locations that exceeded 500 ppm during the 2nd quarter. (1) location was not successfully remediated. PTA expanded the gas collection system within 120 days per 60.755(c)(4)(v). Report indicates the locations of the new infrastructure.</p> <p>FG-ENGINES: The flow to 8 engines was 936,452 MCF with a heat value 518 BTU/SCF. No problems with fuel errors.</p>
09/24/2019	NSPS (Part 60)	Compliance	<p>Initial Liquids Reporting (Annual Liquids Report). Subpart XXX - NSPS</p> <p>This is a document referencing the volume of Leachate recirculated and total volume of all other liquids added.</p>

Activity Date	Activity Type	Compliance Status	Comments
09/19/2019	NSPS (Part 60)	Compliance	<p>Decommission: HC 297, 299, 302, 346, 368, 502, 576. Decommission of wells due gas well expansion and were designed as interim toe-of-slope wells.</p> <p>Wells HC 583 and 584. HOV Temperature. Parameters do not indicate a threat of a subsurface fire.</p>
08/01/2019	Stack Test	Compliance	<p>Test Report for landfill gas fired RICE Engines 2 and 3 (FG-ICENGINES). NSPS test due to replacement.</p> <p>Engine 2 (GZJ00462 previously Engine #5): Generator Output 1641 kW, Engine Output 2292 bhp, Fuel Use 565 scfm, LFG CH4 Content 50.0%, LFG Btu Content 455 Btu/scf, Exhaust Temp 926 F, CO emission rate 12.6 lb/hr (Permit Limit 16.3), NOx emission rate 2.45 lb/hr (Permit Limit 3.0), VOC emission rate 0.50 (Permit Limit 1.0).</p> <p>Engine 3 (GZJ00465 previously Engine #8): Generator Output 1636 kW, Engine Output 2286 bhp, Fuel Use 569 scfm, LFG CH4 Content 49.9%, LFG Btu Content 454 Btu/scf, Exhaust Temp 920 F. CO emission rate 14.2 lb/hr (Permit Limit 16.3), NOx emission rate 2.58 lb/hr (Permit Limit 3.0), VOC emission rate 0.58 (Permit Limit 1.0).</p>
06/13/2019	NSPS (Part 60)	Compliance	<p>Decommission: EW 014, 032, 049, 127, 267, 522, 527 and HC 343, 345, 347, 364, 538, 540, 548, 575. Decommission of wells due to expansion of wellfield.</p> <p>Wells: EW 509, 591, 599, 601, and HC 580. HOV Temperature. Parameters do not indicate a threat of a subsurface fire.</p>

Activity Date	Activity Type	Compliance Status	Comments
04/24/2019	Stack Test	Compliance	<p>Test Report for landfill gas fired RICE Engines 5 and 8 (FG-ICENGINES). NSPS test.</p> <p>Engine 5 (GZJ00462 engine replaced with rebuilt engine GZJ00456): Generator Output 1633 kW, Engine Output 2280 bhp, Fuel Use 538 scfm, LFG CH4 Content 52.9%, LFG Btu Content 481 Btu/scf, Exhaust Temp 942 F, CO emission rate 13.8 lb/hr (Permit Limit 16.3), NOx emission rate 2.22 lb/hr (Permit Limit 3.0), VOC emission rate 0.64 (Permit Limit 1.0).</p> <p>Engine 8 (GZJ00465 engine replaced with rebuilt engine GZJ00457): Generator Output 1632 kW, Engine Output 2280 bhp, Fuel Use 535 scfm, LFG CH4 Content 52.6%, LFG Btu Content 479 Btu/scf, Exhaust Temp 938 F. CO emission rate 13.6 lb/hr (Permit Limit 16.3), NOx emission rate 2.11 lb/hr (Permit Limit 3.0), VOC emission rate 0.60 (Permit Limit 1.0).</p>
04/08/2019	MAERS	Compliance	MAERS Certification form received March 15, 2019.
04/08/2019	ROP Other	Compliance	<p>Semi-Annual Report for Startup, Shutdown, and Malfunction Plan (SSM), July 1, 2018 – December 31, 2018.</p> <p>Startup Events: There were (66) startup events and all were consistent with the SSM plan. No exceedances occurred.</p> <p>Shutdown Events: There were (0) shutdown events.</p> <p>Malfunction Events: There were (0) gas collection control system malfunction events that occurred during this time period. No exceedances occurred.</p>

Activity Date	Activity Type	Compliance Status	Comments
04/08/2019	ROP SEMI 2 CERT	Compliance	<p>Semi-Annual Report per 40 CFR part 63 Subpart AAAA (NESHAP) and per 40 CFR part 60 Subpart WWW (NSPS) for time period 07/01/18 to 12/31/18.</p> <p>EU-ALGCS: There were 123 wells which exceeded temperature, pressure, or oxygen limitations. 52 wells exhibited a temperature, pressure, oxygen exceedance which could not be resolved within 15 days during this reporting period. Well head tuning and expanded gas collection and controls system within 120 days of an initial exceedance were performed to correct these deviations. 25 new wells were installed.</p> <p>FG-OPENFLARES: There were no exceedances.</p> <p>EU-TREATMENT and FG-OPENFLARES: No control devices were simultaneously down for more than 1 hour.</p> <p>FG-ALGCS: There was no time period when the entire system was not in operation in excess of 5 days.</p> <p>EU-LANDFILL: There were 2 locations that initially exceeded 500 ppm during the 3rd quarter scan and 2 locations that were not successfully remediated, therefore, the GGCS was expanded. There were 10 locations that exceeded 500 ppm during the 4th quarter. All were successfully remediated.</p> <p>FG-ENGINES: The flow to 8 engines was 914, 997 MCF with a heat value 531 BTU/SCF.</p>

04/04/2019	Stack Test	Compliance	<p>Test Report for landfill gas fired RICE Engines 1, 2, 3, 4, 6, and 7 (FG-ICENGINES). NSPS test.</p> <p>Engine 1 (GZJ00469): Generator Output 1611 kW, Engine Output 2251 bhp, Fuel Use 537 scfm, LFG CH4 Content 53.3%, LFG Btu Content 485 Btu/scf, Exhaust Temp 968 F, CO emission rate 14.1 lb/hr (Permit Limit 16.3), NOx emission rate 1.75 lb/hr (Permit Limit 3.0), VOC emission rate 0.77 (Permit Limit 1.0).</p> <p>Engine 2 (GZJ00464): Generator Output 1619 kW, Engine Output 2261 bhp, Fuel Use 546 scfm, LFG CH4 Content 52.3%, LFG Btu Content 476 Btu/scf, Exhaust Temp 985 F. CO emission rate 13.5 lb/hr (Permit Limit 16.3), NOx emission rate 2.44 lb/hr (Permit Limit 3.0), VOC emission rate 0.60 (Permit Limit 1.0).</p> <p>Engine 3 (GZJ00467): Generator Output 1615 kW, Engine Output 2257 bhp, Fuel Use 519 scfm, LFG CH4 Content 55.5%, LFG Btu Content 505 Btu/scf, Exhaust Temp 953 F. CO emission rate 13.9 lb/hr (Permit Limit 16.3), NOx emission rate 1.81 lb/hr (Permit Limit 3.0), VOC emission rate 0.66 (Permit Limit 1.0).</p> <p>Engine 4 (GZJ00466): Generator Output 1616 kW, Engine Output 2258 bhp, Fuel Use 519 scfm, LFG CH4 Content 55.3%, LFG Btu Content 503 Btu/scf, Exhaust Temp 943 F. CO emission rate 14.7 lb/hr (Permit Limit 16.3), NOx emission rate 1.88 lb/hr (Permit Limit 3.0), VOC emission rate 0.62 (Permit Limit 1.0).</p> <p>Engine 6 (GZJ00468): Generator Output 1626 kW, Engine Output 2272 bhp, Fuel Use 582 scfm, LFG CH4 Content 51.9%, LFG Btu Content 472 Btu/scf, Exhaust Temp 960 F. CO emission rate 15.3 lb/hr (Permit Limit 16.3), NOx emission rate 1.66 lb/hr (Permit Limit 3.0), VOC emission rate 0.68 (Permit Limit 1.0).</p> <p>Engine 7 (GZ00463): Generator Output 1623 kW, Engine Output</p>
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04/04/2019	Stack Test	Compliance	2268 bhp, Fuel Use 563 scfm, LFG CH4 Content 53.5%, LFG Btu Content 487 Btu/scf, Exhaust Temp 962 F. CO emission rate 14.0 lb/hr (Permit Limit 16.3), NOx emission rate 1.19 lb/hr (Permit Limit 3.0), VOC emission rate 0.85 (Permit Limit 1.0).
03/22/2019	NSPS (Part 60)	Compliance	Wells EW 383, 556. HOV Temperature. Extension for these extraction wells are from Nov. 2017.
03/15/2019	ROP Annual Cert	Compliance	
03/12/2019	NSPS (Part 60)	Compliance	Wells HC 346, 428, 445, 498. HOV Oxygen and Positive Pressure. Shallow toe of slope collectors and on leachate collection layer to control methane migration. All 4 are extensions from Mar. and Aug. 2018.
01/23/2019	NSPS (Part 60)	Compliance	Decommission wells: HC 167, HC 471, HC 504, HC 565, HC 571, HC 572, HC 573, HC 574, HC 586, EW 109, EW 444, EW 520, EW 521, EW 523, EW 564, EW 588. Decommission of the wells due to new construction and sufficient well density.
01/21/2019	NSPS (Part 60)	Compliance	Decommission wells: HC 05 and HC 353.
10/19/2018	NSPS (Part 60)	Compliance	Higher Oxygen and Positive Pressure Request for HC 166, 167, 428, 471. These are toe of slope shallow collectors on the leachate collection layer to prevent gas migration. Temperature Request of EW 444. Parameters indicate no threat of subsurface fire. See file for more information.
10/18/2018	NSPS (Part 60)	Compliance	Decommission request of wells HC 481, 483, 500. Decommission of the wells due to new construction and sufficient well density

Name: Robert Joseph Date: 07/08/20

Supervisor: Sebastianykallemkal