



Public Health and Environment, Health and Human Services  
Oil and Gas Inspection Program  
2016 Site Visits

From January through December 2016, the oil and gas inspector conducted two site visits at active oil and gas sites that are associated with wells operating within the City and County of Broomfield. The site visits allowed the City and County of Broomfield to gather data for a baseline assessment and evaluate current conditions in the field. This spreadsheet shows data collected from the checklist utilized at site visits. The checklist provides yes, no, or not applicable (N/A) responses for compliance items.

OPERATOR	SITE NAME	ACCESS	DATE	WELLS	INVENTORY	THIEF CLOSED	AEROMETRIC INFORMATION RETRIEVAL SYSTEM IDENTIFICATION (AIRS ID)	EMISSION CONTROL DEVICE (ECD)	TYPE	VISIBLE EMISSIONS	INFRARED (IR) CAMERA	NOTIFICATION	RESPONSE	REPAIR	CONFIRM	AUTO-IGNITER	PLUNGER LIFT	BASELINE WATER SAMPLING	WATERWAYS	CONTAINMENT	PROPER SIGNS	DEBRIS	ACCESS ROAD	SPILLS/LEAKS	RESIDENTIAL/SCHOOLS/ETC.	PRODUCED WATER	HYDROGEN SULFIDE WARNING	ANCHORING	HISTORICAL RELEASE	NOISE IMPACTS	VISUAL IMPACTS	BRADENHEAD EXPOSED	
Crestone Peak Resources	<a href="#">Baker/Slipovich Battery</a>	Unlocked-fencing around equipment is visible	2/12/2016	7/29/2016	Baker C Unit 1 Well, 31-27, 6-4-27, 4-2-27, 32-27, Slipovich B-27, 41-27, 8-2-27	4 Condensate Tanks - 330 BBL, 1 Produced Water Tank - 150 BBL, 1 Meter House, 4 Separators, 1 Combustor, 1 Well on Site- Baker Unit 1, 2 Load Out Buckets	Yes	014-1328-001	Yes	Combustor	Yes- observed a release coming from the supply gas line feeding into the combustor around fiber regulator (pneumatic) on 2/12/16 with IR camera- operator tightened compression fitting feeding supply gas line into regulator on 2/22/16	Yes	2/12/2016	2/16/2016	2/22/2016	Yes	Yes-automated	No	No	Good- earth and steel	Yes	No	Good	Yes- compression fitting feeding supply gas line into regulator on combustor- with IR camera	Yes- residential	Fiberglass	Yes	No	Yes	10/24/2012	No	No- tan fencing	Yes
Extraction	<a href="#">Beyer MA 10-5</a>	Unlocked	4/22/2016	7/21/2016	Beyer MA 10-5	2 Crude Tanks - 160 BBL, 1 Produced Water Vault- 48- BBL, 1 Separator, 1 Meter House, 1 Combustor, 1 Well on Site- Beyer 10-5, 1 Scrubber	Yes	014-1325-001 GP 08	Yes	Combustor	Yes- Release identified with IR camera at actuator for combustor and from level controller (pneumatic) on separator. Repair description - tightened the fittings going into the actuator on the ECD tightened the bottom jam nut on the Miser on the top dump of the separator	Yes	7/21/2016	7/25/2016	7/22/2016	Yes	Yes	No	No	Good- earth	Yes	No	Good	Yes-Release identified with IR camera at actuator for combustor and from level controller on separator	Yes- residential	Concrete	Yes	No	No	No	No	No	Yes
Crestone Peak Resources	<a href="#">Helen E1 Battery</a>	Unlocked-fencing around equipment is locked- equipment is visible	4/22/2016	8/10/2016	Helen "E" Unit 1, 4-6-23, 34-23, 43-23, 33-23, 8-8-23	2 Condensate Tanks - 330 BBL, 1 Produced Water Tank - 150 BBL, 2 Meter House, 1 Combustor, 1 Separator, 1 Well on Site- Helen E Unit 1 Well 2 Load Out Buckets, 1 Scrubber	Yes	014-1337-001	Yes	Combustor	Yes- observed that the blow down valve on condensate tank to the east was left open with IR camera. Notified operator from site, field staff sent to the site to close the valve	Yes	4/22/2016	4/22/2016	4/22/2016	Yes	Yes-automated	No	Yes- wetlands	Good- earth and steel	No- change of ownership- no longer an Encana site but still has Encana signs- new owner is Crestone Peak Resources	No- some cut and capped piping from old separation equipment	Good	No- site is in remediation	No	Fiberglass	No	No	Yes	3/27/2014	No	No- tan fencing	Yes
Crestone Peak Resources	<a href="#">Bickler Battery</a>	Unlocked-fencing around equipment is locked- equipment is visible	4/22/2016	7/21/2016	Bickler 24-34, 4-34, 4-4-34, 23-34	3 Condensate Tanks- 330 BBL, 1 Produced Water Tank - 150 BBL, 3 Separators, 1 Meter House, 2 Combustors, 4 Wells on Site 24-34, 4-4-34, 4-4-34, 23-34, 2 Load Out Buckets	Yes	014-1338-001	Yes-2, One is tagged out of service	Combustor	No	Yes				Yes	Yes-automated	No	Yes- surface	Good- steel	Yes- NFPA placard on PW tank is peeling- notified operator on 7/21/16 and received a response on 7/21/16 that it would be replaced	No	Good	No	Fiberglass	Yes	No	No	No	No	No- tan fencing	Yes	
Extraction	<a href="#">Mathena 1-15</a>	Unlocked- equipment is open	5/5/2016	8/16/2016	Mathena 1-15	1 Crude Tank- 300 BBL, 1 Produced Water Vault- 48 BBL, 1 Separator, 1 Meter House, 1 Well on Site	Yes	014-1344-001	No	N/A	Yes- thief hatch release with IR camera (site is not under STEM plan- release does not need to be addressed)	Yes	5/6/2016	5/6/2016	Not required under Reg. 7- site is not covered under operator's STEM plan.	N/A	Yes	No	No	Good- earth	Yes	No	Good	Yes- IR release detected from thief hatch on crude oil tank. Site not covered under STEM plan	Yes- residential	Concrete	Yes	No	No	No	No	Yes	
Extraction	<a href="#">Hulstrom G Unit 1</a>	Unlocked- equipment is open	5/3/2016	8/10/2016	Hulstrom G Unit 1 well	1 Crude Tank - 268 BBL, 1 Produced Water Tank 80 BBL, 1 Separator, 1 Meter House, 1 Combustor, 1 Load Out Bucket, 1 Scrubber 1 Well on Site- Hulstrom G Unit #1	Yes	014-1358-001	Yes	Combustor	Yes- IR Camera leak detected from hi/low controller (pneumatic) on west side of separator and from thief hatch on crude oil tank. The following was completed at the Hulstrom G unit: Hulstrom G unit, Tightened all fittings on Hi-Lo and sprayed with Simple Green and no leaks were detected, tightened all bolts on thief hatch	Yes	5/5/2016	5/5/2016	5/12/2016	Yes	Yes	No	Yes- wetlands west of site	Good- earth	Yes	No	Good	Yes- IR release detected from hi/low controller on separator and from thief hatch on crude oil tank	No	Fiberglass	Yes	No	No	No	No	No	Yes
Extraction	<a href="#">Brozovich MA 8-2</a>	Unlocked- equipment is open	5/2/2016	7/21/2016	Brozovich MA 8-2	1 Crude Tank- 300 BBL, 1 Produced Water Tank 80 BBL, 1 Separator, 1 Meter House, 1 Well on Site - Brozovich MA 8-2	Yes	014-1363-001	No	N/A	Yes- IR camera release detected from thief hatch on crude oil tank. Repair description - tightened all bolts on the thief hatch	Yes	7/21/2016	7/25/2016	7/22/2016	N/A	Yes	No	Yes- spillway	Good- earth	Yes	No	Good	Yes- IR camera release detected from thief hatch on crude oil tank	Yes- residential	Fiberglass	Yes	No	No	No	No	No	Yes
Extraction	<a href="#">PEP Purchase 3-Parham, Eachorn Pipe Line- Drip Station- not under COGCC jurisdiction</a>	Unlocked- equipment is locked and fenced	5/2/2016	7/21/2016	No wells associated with this site- drip for compressor station	1 Crude Tank- 300 BBL, 1 Produced Water Vault- 48 BBL, 1 Load Out Bucket	Yes	014-1364-001	No	N/A	No	Yes				N/A	N/A	No	Yes- spillway	Good- earth	Yes	No	Good	No	Yes- residential	Concrete	Yes	No	No	No	Yes- compressor station	N/A	
Extraction	<a href="#">Nordstrom 2-4</a>	Unlocked- equipment is open	5/3/2016	8/31/2016	Nordstrom 2-4	1 Crude Tank - 300 BBL, 1 Produced Water Vault- 80 BBL, 1 Combustor, 1 Meter House, 1 Separator, 1 Separator, 1 Well on Site- Nordstrom 2-4	Yes	014-1355-001	Yes	Combustor	No	Yes				Yes	Yes	No	Yes	Good- earth- some erosion and burrowing evident	Yes	No	Good	No- staining on body of the separator and stained soils at the Nordstrom 2-4 wellhead	No	Fiberglass	Yes	No	No	No	No	Yes	
Crestone Peak Resources	<a href="#">Bury Crandell C 1 Battery/ Bury Crandell 31-23 Battery</a>	Unlocked-fencing around equipment is locked- equipment is visible	5/5/2016	8/16/2016	Bury Crandell C Unit 1, 6-0-23, 8-2-23, 42-23, 31-23, 32-23, 8-4-23, 8-0-23	4 Condensate tanks- 330 BBL, 1 Produced Water Tank- 230 BBL, Scrub Pot, 2 Combustors, 4 Separators, 1 Meter House, 8 Wells on Site, 1 Load Out Bucket	Yes	014-1360-001	Yes- 2	Combustors	Yes- IR camera release detected from hi/low controller on northeast side of southernmost separator (pneumatic). The repair was finished on 5/13/16. The control switch was adjusted and the 90 was replaced. The Component was snopped and viewed with the FLIR camera to confirm the repair	Yes	5/6/2016	5/6/2016	5/13/2016	Yes	Yes-automated	No	Yes	Good- steel	No- change of ownership- no longer an Encana site but still has Encana signs- new owner is Crestone Peak Resources	Yes- IR camera release detected from hi/low controller on northeast side of southernmost separator	Good	No	Fiberglass	Yes	No	Yes	2/10/2012	No	No- tan fencing	Yes	
Crestone Peak Resources	<a href="#">Helen E2 Battery</a>	Unlocked-fencing around equipment is locked- equipment is visible	5/10/2016	8/1/2016	Helen "E" Unit 2 Well, 14-23, 23-23, 0-4-23, Bury Crandell 12-23	2 Condensate Tanks - 330 BBL, 1 Produced Water Tank - 150 BBL, 2 Separators, 1 Combustor, 1 Meter House, 4 wells on Site- E Unit 2, 14-23, Bury Crandell 12-23, 0-4-23, Load Out Buckets	Yes	014-1337-002	Yes	Combustor	Yes- bubbling water at hammer union on Helen E Unit 2 well. First attempt made to repair did not fix the issue, will need further work. This leak was repaired, after several attempts, on 6/23/16. The rig hands replaced the packing and the repair has been verified with the FLIR camera	Yes	5/10/2016	5/18/2016	6/23/2016	Yes	Yes-automated	No	Yes- ditch	Good- Steel	Yes	No	Good	Yes- bubbling water at hammer union on Helen E Unit 2 well- first attempt made to repair did not fix the issue- will need further work. This leak was repaired after several attempts, on 6/23/16. The rig hands replaced the packing and the repair has been verified with the FLIR camera	No	Fiberglass	Yes	No	No	No	No	No- tan fencing	Yes



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Crestone Peak Resources	<a href="#">Alaux/Sears Battery</a>	Unlocked-fencing around equipment is locked-equipment is visible	5/11/2016	8/1/2016	Alaux 26-5.0-4-26, 26-3.4-4-26, F-Unit 1, Sears 22-26, 2-4-26, 4-26, 0-4-26	3 Condensate Tanks - 330 BBL, 1 Produced Water Tank- 150 BBL, 2 Combuators, 3 Separators, 1 Meter House, 1 Well on Site- F Unit 1 Well, Load Out Buckets	Yes	123-1388-001 (Weld)	Yes- 2	Combustor	Yes- IR camera release detected from thief hatch on middle condensate tank. The thief hatch was closed but not latched. Operator contacted from the site and field staff sent over to properly latch and seal the thief	Yes	8/1/2016	8/1/2016	8/1/2016	Yes	Yes-automated	No	No	Good-Steel	Yes- Weld AIRS	No	Good	Yes- IR release detected from thief hatch on middle condensate tank not being properly latched and sealed	No	Fiberglass	Yes	Yes- PW tank	No	No	No- tan fencing	Yes		
Crestone Peak Resources	<a href="#">Crandell 0-4-26 Battery, Crandell F 1 Battery</a>	Unlocked-fencing around equipment is locked-equipment is visible	5/11/2016	8/5/2016	Crandell 0-8-26, E Unit 1 Well, 4-6-26, 14-26, 22-26, 0-4-26, 24-26, 2-8-26	4 Condensate Tanks - 330 BBL, 1 Produced Water Tank-230 bbls, 4 Separators, 1 Meter House, 2 Combuators, 8 Wells on Site, 2 Load Out Buckets, 1 Scrubber	Yes	014-1353-001	Yes- 2	Combustor	Yes- IR camera releases detected from both regulators (pneumatics) on supply gas line feeding into the combustors and from the shared supply gas line shut off valve between the two combustors	Yes	8/5/2016	8/9/2016	8/18/2016	Yes	Yes-automated	No	No	Good-steel	Yes	Yes- weeds on wellpad and some trash on pad.	Good	Yes- IR camera releases detected from both regulators on supply gas line feeding into the combustors and from the shared supply gas line shut off valve between the two combustors	No	Fiberglass	Yes	No	Yes	7/5/2011	2/22/2012	No	No- tan fencing	Yes
Extraction	<a href="#">Webber H Unit #1</a>	Unlocked	5/10/2016	8/5/2016	Webber H Unit #1	3 Crude Tanks - 100 BBL, 1 Produced Water Tank- 80 BBL, 1 Separator, 1 Meter House, 1 Combuator, 1 Scrubber, 1 Well on Site- Webber H Unit 1	Yes	014-1357-001	Yes	Combustor	Yes- IR camera release detected from thief hatch on crude oil tank to the east	Yes	8/5/2016	8/8/2016	8/8/2016	Yes	Yes	No	No	Good - earth- some erosion	Yes	No	Good	Yes- IR camera release detected from thief hatch on crude oil tank to the east	Yes- residential	Fiberglass	Yes	No	No	No	No- tanks need to be painted	Yes		
Extraction	<a href="#">Brozovich MA 8-10, 15, 16J</a>	Unlocked-equipment is fenced and locked	5/18/2016	8/19/2016	Brozovich MA 8-10, 8-15, 8-16J	2 Crude Tanks - 260 BBL, 1 Produced Water Vault- 48 BBL, 1 Separator, 1 ECD, 1 Meter House, 1 Well on site (MA 8-16J), 1 Scrubber, 1 Load out Bucket	Yes	014-1324-001	Yes	Combustor	Yes- release identified at hi/low controller on separator, pressure gauges (2 pneumatics) between vessels on separator, and union on flash gas line where line turns down towards combustor. On 5/20/16: 1- tightened all bolts on the upper bonnet of the motor valve, sprayed with Simple Green and found no leaks. 2- tightened the jam nut on bottom of Miser, sprayed with Simple Green and found no leaks. 3- tightened the union on the line leading to ECD, sprayed with Simple Green and found no leaks	Yes	5/18/2016	5/19/2016	5/20/2016	Yes	Yes	Yes	No	No	Good- earth- some erosion and runoff evident on contain and wellpad	Yes	No	Good	Yes- IR camera- from hi/low controller on separator, pressure gauges between vessels on separator, and union on flash gas line. Soil staining at 8-16J wellhead	Yes- residential	Concrete	Yes	No	No	No	No- Fencing around site	Yes	
Extraction	<a href="#">Green MA 17-1, 2, 8J</a>	Unlocked- equipment is fenced and locked	5/10/2016	8/1/2016	Green MA 17-1, 17-2, 17-8J	1 Condensate Tank - 250 BBL, 1 Produced Water Vault- 48 BBL, 1 Combuator, 1 Meter House, 1 Scrubber, 1 Well on Site 17-8J	Yes	014-1323-001	Yes	Combustor	No	Yes				Yes	Yes	No	Yes- ditch	Good- earth/plastic	Yes- NFPA placard on crude tank needs to be replaced- current placard is peeling and faded	No	Good	No- some soil staining at wellhead. Operator repacked the orbital valve and greased the wheel at each of these locations and cleaned up and removed the stained soil	Yes- residential	Concrete	Yes	No	Yes	12/23/2012	No	No- fencing	Yes	
Extraction	<a href="#">Green MA 17-9, 15, 16J</a>	Unlocked- equipment is fenced and locked	5/10/2016	9/22/2016	Green MA 17-9, 17-15 & 17-16J	1 Crude Tank - 300 BBL, 1 Produced Water Vault- 48 BBL, 1 Combuator, 1 Separator, 1 Meter House, 1 Well on Site 17-16J	Yes	014-1322-001	Yes	Combustor	Yes- IR camera release detected from open ended tubing at the bottom of PCS controller box at Green MA 17-16J wellhead.	Yes	9/22/2016	9/26/2016	9/22/16- operator repaired poppet latch valve.	Yes	Yes	No	No	Good- earth	Yes	No	Good	Yes- some stained soil below separator- notified Extraction on 5/11/16. Back pressure regulator was rebuilt- 6/1/16. IR release detected from open ended tubing on PCS controller box at Green MA 17-16J wellhead. Also observed soil staining below master valve at Green MA 17-16J wellhead- operator repacked master valve and removed stained soils	Yes- residential	Concrete	Yes	No	Yes	5/11/2004	No	No	Yes	
Extraction	<a href="#">Fedorowicz 2-17</a>	Unlocked- equipment is fenced and locked	5/18/2016	8/17/2016	Fedorowicz 2-17	2 Crude Tanks - 160 BBL, 1 Produced Water Vault- 48 BBL, 1 Separator, 1 Meter House, 1 Well on Site- Fedorowicz 2-17	Yes	014-1341-001	No	Uncontrolled	No.	Yes				N/A	Yes	No	Yes- ditch	Good- earth/wood	Yes	No	Good	No	Yes- residential	Concrete- above ground	Yes	No	No	No	No	No	Yes	
Extraction	<a href="#">Livingston 43-07</a>	Locked - equipment locked and fenced	5/13/2016	9/20/2016	Livingston 43-07	1 Crude Tank- 300 BBL, 1 Produced Water Vault- 60 BBL, 1 Combuator, 1 Separator, 1 Meter House, 1 Well (across street) Livingston 43-07	Yes	014-1352-001	Yes	Combustor	Yes- IR camera releases detected from open ended tubing (weep valve) connected to bottom of PCS controller box and one of the fittings at the bottom of PCS controller box at the Livingston 43-07 wellhead	Yes	9/21/2016	9/26/2016	9-22-16- operator repaired poppet latch valve and tightened fitting on controller box.	Yes	Yes	No	Yes- reservoir	Good- steel, earth, lined	Yes	No	Good	Yes- some soil staining and oil build up below master valve and on wellhead- repacked the orbital valve and greased the wheel at each of these locations and cleaned up and removed the stained soil. 9/20/16- IR camera release detected from open ended tubing and fitting on the bottom of the PCS controller box at Livingston 43-07 wellhead	No	Concrete	Yes	No	No	No	No- tan fencing	Yes		
Crestone Peak Resources	<a href="#">Kats B2 Battery</a>	Unlocked-fencing around equipment is locked-equipment is visible	6/8/2016	9/21/2016	Kats B Unit 2 Well, 41-34, 31-34, 8-2-34, 6-4-34, 42-34	3 Condensate Tanks - 330 BBL, 1 Produced Water Tank- 150 BBL, 2 Combuators, 1 Separator, 1 Meter House, 5 Wells on Site, 2 Load Out Buckets	Yes	014-1330-001	Yes- 2	Combustors	No	Yes				Yes	Yes-automated	No	No	Good- steel	No- ownership change to Crestone Peak Resources- signs still say Encana	No	Good	No	No	Fiberglass	Yes	No	No	No	No	No- tan fencing/barb wire	Yes	
Crestone Peak Resources	<a href="#">Bury Crandell C2 Battery</a>	Unlocked-fencing around equipment is locked-equipment is visible	6/8/2016	8/5/2016	Bury Crandell C Unit 2 Well, 22-23, 0-0-23, 21-23	2 Condensate Tanks - 330 BBL, 1 Produced Water Tank- 150 BBL, 1 Combuator, 2 Separators, 1 Meter House, 4 Wells on Site, Load Out Buckets	Yes	014-1346-001	Yes	Combustor	No	Yes				Yes	Yes	No	Yes- ditch	Good- steel and earth	Yes	No	Good	No	No	Fiberglass	Yes	No	No	No	No	No- tan fencing	Yes	
Extraction	<a href="#">Fedorowicz 1-17</a>	Locked	6/10/2016	10/18/2016	Fedorowicz 1-17	2 Crude Tanks- 200 BBL, 1 Produced water Vault- 48-BBL, 1 Separator, 1 Meter House, 1 Well on Site- Fedorowicz 1-17	Yes	014-1317-001 GP 08	No	Uncontrolled	Yes- IR camera release identified from thief hatch on southern crude oil tank	Yes	10/20/2016	10/26/2016	10/24/16-Gasket cleaned and re-inspected.	N/A	Yes	No	No	Good- earth	Yes	No	Good	No- drip from union of tank and load out line on southern tank, from bull plug on northern tank, and below master valve at wellhead- notified Extraction on 6/13/16- repacked the orbital valve and greased the wheel at each of these locations and cleaned up and removed the stained soil	Yes- residential	Concrete	Yes	No	No	No	No	Yes		



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Extraction	<a href="#">Carlson 1-24</a>	Locked-equipment is fenced and locked	6/10/2016	9/21/2016	Carlson 1-24	2 Crude Tanks - 160 BBL, 1 Produced Water Vault- 48 BBL, 1 Separator, 1 Meter House, Methanol System, 1 Well on Site-Carlson 1-24	Yes	014-1348-001	No	Uncontrolled	Yes- IR Camera releases detected from back pressure Kimray valve (pneumatic) on separator and from PRV on crude tank	Yes	9/22/2016	9/26/2016	9/23/2016- operator replaced back pressure Kimray valve. PRV found to be operating correctly-site is uncontrolled.		N/A	Yes	No	Yes-surface	Good-earth-some erosion evident	Yes	No-overgrown weeds	Good	Yes- IR camera releases detected from back pressure Kimray valve on separator and from PRV on crude tank	Yes-residential/school	Concrete	Yes	No	No	No	No	No-tan fencing	Yes		
Extraction	<a href="#">Brozovich MA 8-8J</a>	Locked	6/17/2016	9/20/2016	Brozovich MA 8-8J	2 Crude Tanks- 300 BBL, 1 Produced Water Vault- 80 BBL, 1 Separator, 1 Meter House, 1 Well on Site-Brozovich 8-8J	Yes	014-1363-001	No	Uncontrolled	Yes- IR camera releases identified from Fisher controller box on separator and from level controller (pneumatics) between upper and lower vessel on separator	Yes	9/21/2016	9/26/2016	9/22/16- operator cleaned and adjusted Fisher pressure regulator and replaced Miser between top and bottom vessel.		N/A	Yes	No	No	Good-earth	No	No- NFPA placard, health hazard warning, or operator information on tanks. Newly painted-notified Extraction on 6/20/16 and response came on 6/20/16 that signs would be put on tanks.	Good	Yes- IR camera releases identified from Fisher controller box on separator and from level controller between upper and lower vessel on separator	Yes-residential	Fiberglass	No	No	No	No	No	No	Yes		
Extraction	<a href="#">Nordstrom 1-9</a>	Unlocked	6/17/2016	10/7/2016	Nordstrom 1-9	1 Crude Tank 300 BBL, 1 Produced Water Vault 48 BBL, 1 Separator, 1 Meter House, 1 Well on Site	Yes	014-1342-001	No	Uncontrolled	Yes- IR camera release detected from PRV on crude tank. Checked multiple times over twenty minutes and release was constant	Yes	10/11/2016	10/24/2016	10/21/2016	10/24/2016	N/A	Yes	No	No	Good-earth-some erosion evident	Yes	No	Good	Yes- IR camera release detected and noted in 'Visible Emissions'	Yes-residential	Concrete	Yes	No	No	No	No	No	Yes		
Extraction	<a href="#">Hellerstein 2-18</a>	Unlocked-equipment is locked and fenced	6/21/2016	9/20/2016	Hellerstein 2-18	2 Crude Tanks - 160 BBL, 1 Produced Water Tank- 48 BBL, 1 Separator, 1 Meter House, 1 Well on Site-Hellerstein 2-18- emulsifier stored on site to be used in crude tanks to break out emulsion and water when needed	Yes	014-1316-001	No	Uncontrolled	Yes-IR releases detected from thief hatch on southern tank and from doghouse (pneumatic)	Yes	6/21/2016	6/23/2016	6/25/16- thief hatch bolts were tightened and stopped release- wizard need to be replaced- operator tried to fix but did not stop release. Site was shut in until repair can be made. 6/25/16- wizard was replaced.		N/A	Yes	No	No	Good-earth and wood-some buckling	Yes	No-empty containers	Good	No-soil staining at wellhead and product build up on bradenhead access valve. Issues were addressed on 6/23/16. Valve cleaned and stained soils removed	No	Concrete	Yes	No	No	No	No	No	No-fencing around battery-wood fence around well	Yes	
Extraction	<a href="#">Nordstrom 3-9</a>	Unlocked-gate at entrance	6/21/2016	10/7/2016	Nordstrom 3-9	1 Crude Tank- 300 BBL, 1 Produced Water Vault- 60 BBL, 1 Separator, 1 Meter House, 1 Well on Site-Nordstrom 3-9	Yes	014-1343-001	No	Uncontrolled	Yes- IR camera releases detected from the thief hatch on the crude oil tank, Kimray valve to tank on separator, and temperature controller on separator (2 pneumatics)	Yes	6/21/2016	6/23/2016	6/25/16- Kimray BPR, tightened fitting and sprayed with Simple Green. No leaks detected, T-12 Thermostat, tightened fittings and sprayed with Simple Green. No leaks detected, and Thief hatch, tightened bolts and sprayed with Simple Green. No leaks detected.		N/A	Yes	No	No	Good-earth	Yes	No	Good	Yes- IR camera releases from thief hatch on crude oil tank, back pressure regulator on separator, and T-12 thermostat on separator	Yes-residential	Concrete	Yes	No	No	No	No	No	Yes		
Natural Resource Group	<a href="#">Shannon-Roberts 2,3,4</a>	Unlocked	6/22/2016	10/26/2016	Shannon Roberts 2,3,4	1 Crude Tank - 300 BBL, 1 Produced Water Tank 81 BBL, 1 Separator, 1 Meter House, 1 Well on Site-Shannon-Roberts #3	Yes	No AIRS	No	Uncontrolled	Yes- IR release detected from uppermost PSI gauge at Shannon Roberts #3 well (pneumatic)	Yes	6/23/2016	6/24/2016	7/15/16-leaky union tightened.		N/A	Yes	No	Yes-ditch	OK-earth-some erosion and burrowing evident-notified operator on 6/23/16	Yes	No-weeds growing on and inside containment-notified 6/23/16- bird protector cover removed from separator chimney-notified 6/23/16	Good	Yes- IR release detected from uppermost PSI gauge on Shannon Roberts #3 well (pneumatic)	No	Steel	Yes	No	No	No	No	No	Yes-at surface but mostly buried		
Natural Resource Group	<a href="#">Shannon-Roberts #1</a>	Unlocked	6/22/2016	10/26/2016	Shannon-Roberts #1	1 Crude Tank- 210 BBL, 1 Produced Water Tank- 80 BBL, 1 Separator, 1 Meter House, 1 Well on Site-Shannon-Roberts #1	Yes	No AIRS	No	Uncontrolled	Yes-IR releases identified from thief hatch on crude tank, from red cylinder below PSI gauges at Shannon Roberts #1 wellhead (pneumatic), from disconnected horizontal gas line on separator, open ended piping on top of separator, and from union on separator where gas dryer line heads towards kimray valve.	Yes	6/23/2016	6/24/2016	7/6/2016		N/A	Yes	No	Yes-wetlands	OK-earth-erosion and burrowing evident-notified operator on 6-23-16	Yes	No-weeds growing inside and on containment	Fair	Yes-IR releases identified from thief hatch on crude tank, from red cylinder below PSI gauges at Shannon Roberts #1 wellhead (pneumatic), from disconnected horizontal gas line on separator, open ended piping on top of separator, and from union on separator where gas dryer line heads towards kimray valve. Also, large stain of product inside containment- unsure if it is a leak or messy load out of tank-notified operator 6/23/16- rechecked on 6/24/16 and size had not increased. Operator is using a bioremediation technique on site- soils are on a tarp and contained to protect from runoff	No	Steel	Yes	Yes	No	No	No	Yes			
Extraction	<a href="#">Nordstrom 5-4</a>	Unlocked	6/30/2016	9/22/2016	Nordstrom 5-4	1 Crude Tank- 300 BBL, 1 Produced Water tank- 80 BBL, 1 Separator, 1 Meter House, 1 Combustor, 1 Scrubber, 1 Load Out Bucket, 1 Well on Site-Nordstrom 5-4	Yes	014-1356-001	Yes	Combustor	Yes- IR camera release detected from thief hatch on crude oil tank and from south east facing rating at Nordstrom 5-4 wellhead.	Yes	9/22/2016	9/26/2016	9/23/16- tightened all bolts, cleaned inner gasket, and checked spring on thief hatch- first attempt at wellhead repair was unsuccessful and has been placed on wellhead project list.		Yes	Yes	No	No	Good-earth-some wellpad erosion evident	Yes	No-weeds are beginning to grow on wellpad	Good	Yes-some soil staining below master valve at Nordstrom 5-4 wellhead- 9/22/16, IR camera release from thief hatch and from south east facing ratigan at Nordstrom 5-4 wellhead.	No	Fiberglass	Yes	No	No	No	No	No	No	No	Yes
Extraction	<a href="#">Mapz MD 13-1J and 2 (one well in Broomfield, one well in Boulder County)</a>	Unlocked	6/30/2016	9/23/2016	Mapz MD 13-1J, 13-2	2 Crude Tanks - 160 BBL, 1 Produced Water Vault- 48 BBL, 1 Separator, 1 Meter House, 1 well on Site - Mapz MD 13-1J	Yes	013-1268-001	No	Uncontrolled	Yes- IR camera release detected from thief hatch on southern crude tank and from PRV on crude tanks.	Yes	9/23/2016	9/27/2016	9/27/16- new thief hatch and new PRV were installed on 9/27/16.		N/A	Yes	No	Yes-surface	Good-earth-some erosion evident on contain- Extraction rebuilt containment on 7/1/16	Yes	No	Good	Yes- IR release from thief hatch on southern crude tank and from PRV on crude tanks	Yes-residential	Concrete	Yes	No	No	No	No	No	Yes		
Extraction	<a href="#">Varra MD 1-21</a>	Unlocked	6/30/2016	10/10/2016	Varra MD 1-21	2 Crude Tanks - 160 BBL, 1 Produced Water Tank - 48 BBL, 1 Separator, 1 Meter House, 1 Well on Site-Varra 1-21	Yes	014-1345-001	No	Uncontrolled	Yes- IR camera release detected from PRV on crude tank. Checked multiple times over twenty minutes and release was constant.	Yes	10/11/2016	10/24/2016	10/21/2016		N/A	Yes	No	Yes-irrigation ditch	Good-earth	Yes	No	Good	Yes- IR camera release detected from PRV on crude tank. Checked multiple times over twenty minutes and release was constant	Yes-residential	Concrete	Yes	No	No	No	No	No	Yes		
Blue Chip Oil	<a href="#">Shannon Roberts #2</a>	Unlocked	7/14/2016	12/7/2016	Shannon Roberts 26-5, Roberts #2	2 Crude Tanks - 300 BBL, 1 Produced Water Tank - 100 BBL, 1 Separator, 2 Meter Houses, Load Out Buckets, 1 Combustor	Yes	001-1608-001	Yes	Combustor	Yes- IR camera release detected from regulator inside of doghouse on separator	Yes	12/7/2016	12/7/2016	12/7/16- lease operator was on site and repairing leak when it was identified.	12/7/2016	Yes	Yes	No	Yes-ditch	Good-earth-some erosion-lease operator was on site and repaired containment erosion	Yes	No-weeds recently sprayed	Good	Yes- IR camera release detected from regulator inside of doghouse on separator	No	Fiberglass	No	No	No	No	No	No	yes		



Public Health and Environment, Health and Human Services  
 Oil and Gas Inspection Program  
 2016 Site Visits

From January through December 2016, the oil and gas inspector conducted two site visits at active oil and gas sites that are associated with wells operating within the City and County of Broomfield. The site visits allowed the City and County of Broomfield to gather data for a baseline assessment and evaluate current conditions in the field. This spreadsheet shows data collected from the checklist utilized at site visits. The checklist provides yes, no, or not applicable (N/A) responses for compliance items.

OPERATOR	SITE NAME	ACCESS	DATE	WELLS	INVENTORY	THIEF CLOSED	AEROMETRIC INFORMATION RETRIEVAL SYSTEM IDENTIFICATION (AIRS ID)	EMISSION CONTROL DEVICE (ECD)	TYPE	VISIBLE EMISSIONS	INFRARED (IR) CAMERA	NOTIFICATION	RESPONSE	REPAIR	CONFIRM	AUTO-IGNITER	PLUNGER LIFT	BASELINE WATER SAMPLING	WATERWAYS	CONTAINMENT	PROPER SIGNS	DEBRIS	ACCESS ROAD	SPILLS/LEAKS	RESIDENTIAL/SCHOOLS/ETC.	PRODUCED WATER	HYDROGEN SULFIDE WARNING	ANCHORING	HISTORICAL RELEASE	NOISE IMPACTS	VISUAL IMPACTS	BRADENHEAD EXPOSED	
Crestone Peak Resources	<a href="#">Crandell E2 Battery</a>	Locked	7/18/2016	11/22/2016	Crandell E Unit 2 Well	1 Condensate Tank - 300 BBL, 1 Produced Water Tank - 110 BBL, 1 Meter House, 1 Separator, 1 Well on Site- Crandell E Unit 2 Well	Yes	No AIRS	No	Uncontrolled	No	Yes				N/A	Yes-automated	No	No	Good- earth and steel	Yes	No	Good	No	Yes- residential	Fiberglass	No	No	No	No	No	No-tan fencing	Yes
Kerr McGee	<a href="#">Priest USX UU 35-1</a>	Locked - sensitive property	7/19/2016	11/22/2016	Priest USX UU 35-1	1 Crude Tank - 268 BBL, 1 Produced water Vault- 55 BBL, 1 Separator, 1 Meter House, Load Out Bucket	Yes	123-8622-001	No	Uncontrolled	Yes- emission coming from thief hatch detected with IR camera- lease operator arrived on site and stopped release	7/19/2016	7/19/2016	7/19/2016	7/19/2016	N/A	Yes	No	Yes- ditch	Good- steel lined and earth	Yes	No	Good	Yes- IR camera release detected from thief hatch on crude oil tank	Yes- residential	Concrete	Yes	No	No	No	No	No	No
Extraction	<a href="#">Sharpe 2-10</a>	Unlocked- equipment is locked and fenced	9/16/2016	11/7/2016	Sharpe 2-10	1 Crude Tank - 300 BBL, 1 Produced Water Vault- 48 BBL, 1 Separator, 1 Meter House, 1 Well on Site- Sharpe 2-10	Yes	014-1340-001	No	Uncontrolled	Yes- IR camera release detected from the Fisher controller box and from level controller between upper and lower vessel on separator	11/9/2016	11/14/2016	11/11/2016- adjusted and tightened fittings.		N/A	Yes	No	No	Good- earth	Yes	No	Good- some deep ruts	Yes- IR camera release detected from the Fisher controller box and from level controller between upper and lower vessel on separator	No	Concrete	Yes	No	No	No	No	No-fenced- tanks need paint	Yes
Extraction	<a href="#">Shirk MD 21-4D</a>	Locked	9/16/2016	To be Plugged (Shut-in 7/2016)	Shirk MD 21-4D	2 Crude Tanks - 1 53 BBL Produced Water Tank, 1 Separator, 1 Meter House, 1 Well on Site- Shirk MD 21-4D	Yes- western crude tank was closed but not latched shut	No AIRS	No	Uncontrolled	No- could hear an audible gas release at the Shirk MD 21-4D wellhead-well is scheduled to be P&A on 10/17/16	9/16/2016	9/26/2016	Received P&A notification on 10/4/16.		N/A	Yes	No	Yes- irrigation ditch	Good-earth some erosion- containment at separator has been worn away, possibly caused by livestock.	No AIRS/ contents unknown	Yes- fencing is torn away weeds growing on inside of containment	Good	Yes- audible release behind master valve on well	No	Concrete	Yes	No	No	No	No	No- tanks need to be painted	Yes