ADEQ

A R K A N S A S
Department of Environmental Quality

May 30, 2013

Mr. Terry Downing
Manager EH & S
XTO Energy, Inc.
210 Park Avenue, Suite 2350
Oklahoma City, OK 73102

RE: Complaint investigation of possible gas well related fluids in a stream in Van Buren County

Dear Mr. Downing:

On May 17, 2013, I performed an investigation of a complaint concerning a possible release of gas well E&P waste from an XTO Energy gas well pad. The investigation was conducted in accordance with the provisions of the Arkansas Water & Air Pollution Control Act and the regulations promulgated there under, as well as the Arkansas Oil and Gas Commission's Rule B-17. At the time of the investigation, you were not in violation of these rules and regulations.

Please refer to the attached Complaint Report for details and comments regarding the investigation at the above referenced site.

If you should have any questions, feel free to contact me at 479-968-7339, ext. 15 or via email at youngd@adeq.state.ar.us.

Sincerely,

David Young
Oil & Gas Field Inspector
Water Division

cc: Joel Dunlap, XTO Energy, Joel_Dunlap@xtoenergy.com
Bill and Vera Chwalinski, wcchwa@artelco.com
Matt Mourot, Ark. Game and Fish Commission, mgmourot@agfc.state.ar.us

ADEQ
ARKANSAS
Department of Environmental Quality

WATER DIVISION COMPLAINT REPORT

AFIN: **71-00000**	PERMIT #: **N/A**
COUNTY: **71 Van Buren**	PDS #:
GPS LOCATION: LAT: **35.481483** LONG: **-92.615380** ☐ Discharge Site / ☒ General Area / ☐ Entrance	

COMPLAINANT NAME: **Bill Chwalinski**	COMPLAINT AGAINST: **XTO Energy, Inc.**
RESPONSE REQUESTED BY COMPLAINANT: **Yes**	SITE ADDRESS: **35.48227, -92.6026**
MAILING ADDRESS: **240 Evans Lane**	MAILING ADDRESS: **210 Park Ave. Suite 2350**
CITY, STATE, ZIP: **Cleveland AR 72030**	CITY, STATE, ZIP: **Oklahoma City OK 73102**
PHONE & EXT: **501-592-3945** FAX:	PHONE & EXT: FAX:
EMAIL: **wcchwa@artelco.com**	EMAIL:
HOW WAS COMPLAINT RECEIVED BY ADEQ: **EML**	ADEQ = ADEQ Personnel | EML = E-Mail | FAX = Fax | LTR = Letter PERS = Personal Contact | PHON = Telephone | WEB = ADEQ Website

PERSON RECEIVING REPORT: **Kerri McCabe**	DATE: **5/16/13**	SUPERVISOR REFERRAL:	DATE:
MEDIA SUPERVISOR REFERRAL:	DATE:	RECEIVING INSPECTOR: (ID & Name) **83908 David Young**	DATE: **5/17/13**

DETAILED DESCRIPTION OF COMPLAINT

Complainant said that he has concerns about surface water contamination. He lost a cow and has concerns about potential chemicals in his pond. When I spoke with Mrs. Chwalinski, she said that there was black water coming through a culvert under the road that feeds into their pond, and she thought it might be coming from a nearby gas well. The complaint was forwarded to ADEQ by Matt Mourot of the Ark. Game and Fish Commission.

DETAILED LOCATION

From I-40 at Morrilton, Ark., take the Hwy. 95 exit. Go north on Hwy. 95 to Cleveland. Go past Cleveland approximately 8 miles and turn right on County Road 11 (Pleasant Grove Loop). Culvert is approx. 15 yards down this road.

PREVIOUS COMPLAINTS: **No** DATE(S):

FOLLOW-UP ON COMPLAINT

NUMBER OF SITE VISITS: **1** DATES: FIRST **5/17/13** SECOND THIRD

PHOTOS TAKEN: **Yes**	DISCHARGE TO WATER OF THE STATE: **No**	SAMPLES COLLECTED: **No**

NAME OF WATERBODY: **N/A**

FAYETTEVILLE SHALE RELATED: **Yes**	FAYETTEVILLE SHALE VIOLATIONS: **No**

INVESTIGATION & ACTION TAKEN

I met Mr. Chwalinski at the location of the culvert that goes under Pleasant Grove Loop road. I observed that the water upstream and downstream of the culvert was tea colored to black. Approximately 10 yards upstream from the culvert on the east side of the road was a ponded area from where the stream was blocked and ponded. The water in this "pond" was also dark/black and was stagnant. Biological "sheen" was visible in both the stream and on the edges of the ponded area. I calibrated my Conductivity meter and took conductivity readings upstream and downstream of the culvert. I also took readings at Mr. Chwalinski's pond (approximately 60 yards downstream of the the culvert). The Conductivity reading upstream of the culvert was 49.4 (micro-Siemens) and downstream was 54.8. The readings from Mr. Chwalinski's pond were 59.6 (shallow) and 60.2 (deep and opposite end). These readings are consistant with typical surface water readings for Conductivity from previous tests that I have performed on streams in this region. The water color in Mr. Chwalinski's pond was normal (clear to brown with depth). Next, I followed the stream upstream from the culvert and ponded area. The feeder stream water gradually got clearer as I went upstream. About 150 yards up from the culvert was another ponded area. The water here was also dark, but not as black as the one near the culvert. The stream up from this area disapated into a pasture. The pasture basically drains and creates the stream. There was evidence of cattle in the pasture (manure) and in the woods around the stream. It should be noted that frogs and aquatic insects were present in the stream and both ponded areas as well as in Mr. Chwalinski's pond. I considered the posibility that the water could have been colored by runoff of dust suppresent from the adjacent county road. However, there was no evidence that the road had been recently treated, and the drainage for the county road (both sides) was downstream of the creek and ponded areas. Next, I went down the couny road to the nearest gas well pad (XTO Energy's Jones 10-15 #1-29H). The well is approximately 3/4 of a mile due east from the culvert. I inspected the pad, the draninage ditches from the pad, and the surrounding area. I saw no evidence of leakage of production fluids from this site.

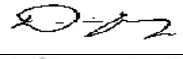
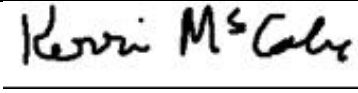
In conclusion, my conductivity measurements were not indicitive of the presence of produced or flow back water from gas operations, and no leakage of fluids were found at the nearest upstream gas well pad. Also, there was no evidence or circumstance where runoff of dust suppresent from the county road was seen. The large ponded area by the culvert appeared to have been there for some time and was stagnant as was the smaller ponded area upstream. Bubbles were seen escaping from the water. This could be methane from rotting vegetation. I told Mr. Chwalinski that I believed that the water in the culvert and ponds was colored black from stagnant/rotting vegetation. Per his request, I will send Mr. Chwalinski a list of companys that can test the water in his ponds.

REFERRED: **No**	TO WHOM: **N/A**	DATE REFERRED:

RESPONSE TRACKING

RESPONSE REQUESTED: **Yes**	RESPONSE PROVIDED: **Yes**	RESPONSE PROVIDED DATE: **5/17/13**
BY WHOM?(ID and Name): **83908 David Young**	ASSIGNED TO? (ID and Name):	

RESPONSE COMMENT:
After my investigation, I met with Mr. and Mrs. Chwalinski, and let them know what I had found. He also requested a list of labs that would test water samples from his pond. I will provide that list to him.

INSPECTOR: 	**David Young**	DATE: **5/20/13**
SUPERVISOR: 	**Kerri McCabe**	DATE: **5/28/2013**

Revised: 5/13/2013

Water Division Photographic Evidence Sheet					
Location:	**XTO Energy, Inc.Culvert on Pleasant Grove Loop Road (35.481483, -92.615380), Van Buren County**				
Photographer:	**David Young**	Date:	**5-17-13**	Time:	**1:32**
Witness:	**None**			Photo #:	**1**
Description:	**Water downstream of culvert under Pleasant Grove Loop Road.**				

Photographer:	**David Young**	Date:	**5-17-13**	Time:	**1:31**
Witness:	**None**			Photo #:	**2**
Description:	**Conductivity reading downstream of the culvert.**				

Water Division Photographic Evidence Sheet					
Location:	**Culvert on Pleasant Grove Loop Road (35.481483, -92.615380), Van Buren County**				
Photographer:	**David Young**	Date:	**5-17-13**	Time:	**1:37**
Witness:	**None**			Photo #:	**3**
Description:	**Water upstream of the culvert (note biological sheen on right).**				

Photographer:	**David Young**	Date:	**5-17-13**	Time:	**1:48**
Witness:	**None**			Photo #:	**4**
Description:	**Water in Mr. Chwalinski's pond (clear to brown).**				

Water Division Photographic Evidence Sheet					
Location:	**Culvert on Pleasant Grove Loop Road (35.481483, -92.615380), Van Buren County**				
Photographer:	**David Young**	Date:	**5-17-13**	Time:	**1:46**
Witness:	**None**			Photo #:	**5**
Description:	**Conductivity reading from Mr. Chwalinski's pond (deep end).**				

Photographer:	**David Young**	Date:	**5-17-13**	Time:	**2:00**
Witness:	**None**			Photo #:	**6**
Description:	**Ponded area just upstream of culvert (note black water).**				

Water Division Photographic Evidence Sheet					
Location:	**XTO Energy, Inc. Culvert on Pleasant Grove Loop Road (35.481483, -92.615380), Van Buren County**				
Photographer:	**David Young**	Date:	**5-17-13**	Time:	**2:07**
Witness:	**None**			Photo #:	**7**
Description:	**Second, smaller ponded area near pasture.**				

Photographer:	**David Young**	Date:	**5-17-13**	Time:	**2:07**
Witness:	**None**			Photo #:	**8**
Description:	**Pasture near second ponded area (to the left in this photo).**				

Water Division Photographic Evidence Sheet					
Location:	**Culvert on Pleasant Grove Loop Road (35.481483, -92.615380), Van Buren County**				
Photographer:	**David Young**	Date:	**5-17-13**	Time:	**2:24**
Witness:	**None**			Photo #:	**9**
Description:	**Site identification for XTO Energy's Jones 10-15 #1-29H gas well.**				

Photographer:	**David Young**	Date:	**5-17-13**	Time:	**2:29**
Witness:	**None**			Photo #:	**10**
Description:	**Relatively clear water in drainage ditch at well pad.**