

**JOINT CITY COUNCIL OVERSIGHT COMMITTEE/  
FINANCE COMMITTEE MEETING**

**CONFERENCE ROOM – MUNICIPAL BUILDING  
201 WEST GRAY**

**WEDNESDAY, APRIL 30, 2014**

**5:30 P.M.**

- 1. DISCUSSION REGARDING BULK WATER METER SALES AND OTHER ISSUES ASSOCIATED WITH OIL AND GAS DRILLING OPERATIONS WITHIN THE CITY.**
- 2. MISCELLANEOUS DISCUSSION.**



# office memorandum

**Date:** April 24, 2014  
**To:** Steve Lewis, City Manager  
**From:** Kenneth Komiske, Director of Utilities  
**Subject:** Bulk Sales of Potable Water to Oil Companies for Well Drilling and Fracking

**BACKGROUND:**

Finley Resources, Inc. (“Finley”), a Fort Worth, Texas-based oil and gas company is drilling a horizontal well on the northeast side of Norman along Franklin Road. Finley may be using the process of hydraulic fracturing, commonly called “fracking,” which involves injecting water mixed with chemicals and sand into the ground to fracture the rock formation below the surface in order to extract oil and gas. To supply the water required for drilling and possibly fracking, Finley obtained a bulk water meter permit on March 12, 2014, and is buying potable water directly from a City fire hydrant. It is anticipated that Finley’s project to drill and develop a well will take between four to eight weeks.

Public concerns have been raised about the City selling potable water to oil/gas companies for fracking, especially when the City and entire metro area is in a drought, is currently under a mandatory water conservation plan and has had to purchase water from Oklahoma City (“OKC”) for the past few years.

**ANALYSIS:**

**I. History and Basis of Bulk Water Sales to Industrial Customers**

**A. Bulk Water Sales**

Chapter 21 of the City’s Code of Ordinances covers utility services, including water rates, permits, and fees. Section 21-107 outlines water rates but does not include a specific rate for bulk water sales. However, § 21-406 of the City’s Code of Ordinances authorizes the City to grant bulk water meter permits to customers seeking to purchase water directly from a City fire hydrant. The fire hydrant deposit and permit fee application are obtained from the Line Maintenance Division. “The amount of deposit and permit fees are set administratively.” § 21-406.

The customer is charged a refundable deposit of \$100 for ¾" and 1" meters and \$1,000 for 2" meters, respectively. Each month, the customer is charged a \$25.00 permit fee and a water usage charge of \$2.50 per 1,000 gallons. This premium water usage charge (exceeding the commercial rate of \$2.10 per 1,000 gallons) is charged for the convenience of connecting directly to a fire hydrant and receiving high-flow access. This option also provides the customer an opportunity to purchase water on a temporary basis and avoid connection fees.

The City has 60 hydrant meters that can be rented out to customers, usually consisting of commercial construction companies and other industrial companies, although non-profit organizations, such as Girls Scouts, have also rented meters for car-washing fundraisers. The City Ordinance does not contain any restrictions on who can obtain a permit, how much bulk water can be purchased by a single customer, or how long a customer may rent the meter.

**B. City's Water Supply**

The City obtains most of its drinking water from Lake Thunderbird and underground water wells drawing from the Garber-Wellington Aquifer. When needed, the City also purchases additional water from OKC.

During the past several summers the City of Norman's Water Utility Authority ("Authority") has purchased water from OKC to meet peak summer demands. Section 60-55-16 of OKC's municipal Code of Ordinances sets forth the rate at which it charges for water usage. The Authority pays the rates charged to customers who are outside OKC and only purchase water on demand or as needed. These rates are changed annually. The current water usage rate is \$5.23 per thousand gallons.

During the last three fiscal years, the City has purchased the following amounts of drinking water from OKC:

<b>FYE</b>	<b>Amount Purchased from OKC</b>	<b>Percent of Total Water Produced</b>
2011	76 million gallons	1.6%
2012	147 million gallons	3.0%
2013	70 million gallons	1.5%

During the last three fiscal years, the City paid OKC the following amounts of money for drinking water purchases:

FYE	Amount Paid to OKC*
2011	\$327,000
2012	\$697,000
2013	\$338,000

\* OKC's water rates have increased every year. These figures show the amount the City paid to OKC during a fiscal year. OKC's rates change on October 1<sup>st</sup> every year.

### C. Sources of Water for Fracking

Fracking uses water mixed with chemicals and thousands of pounds of sand. Generally, there are three sources of water oil and gas companies use: reclaimed water, non-potable water, and potable water.

#### 1. Reclaimed Water

In order to use reclaimed water (also referred to as "recycled" or "reused" water), a permit must be obtained from the Oklahoma Department of Environmental Quality ("DEQ") both for constructing and/or supplying reclaimed water. Oil and gas drilling or fracking is not currently listed as a permitted use. Tim Ward, Assistant Director for External Affairs at DEQ, has stated that the DEQ is currently examining a permitting process for reclaimed water to be used in fracking. Recently DEQ contacted Norman Staff and inquired if a permit in the City of Norman was requested. If so, DEQ stated it would go through a 'variance committee' for review and try to be accommodating if proper criteria were in place.

#### 2. Non-Potable Water

Another potential option is the use of non-potable water pumped from wells or ponds. The City does not have any ponds from which to draw non-potable water. The City does have some non-potable water wells containing higher levels of arsenic, but these are not located geographically within a close distance to the Finley project and are currently out of service without electricity or pumping equipment.

#### 3. Potable Water

There are no City Ordinances prohibiting the sale or use of potable water for fracking. The Oklahoma Corporation Commission ("OCC") regulates fracking (see the OCC's Oil and Gas Conservation Rules located in Title

165 of the OAC), but the OCC does not address the water source used for fracking.

The City receives revenue from selling water through the hydrant meters. Total usage through these hydrant meters for the past three years is as follows:<sup>1</sup>

<b>Calendar Year</b>	<b>Amount of Bulk Usage</b>	<b>Percent of Total Water Produced</b>
2011	26.155 million gallons	0.5%
2012	30.658 million gallons	0.6%
2013	18.104 million gallons	0.4%

Calculated at the current \$2.50 per 1,000 gallon water use charge (and not including the additional monthly permit fee), the amount of revenue generation would be the following:

<b>Calendar Year</b>	<b>Revenue Generation</b>
2011	\$65,388
2012	\$76,645
2013	\$45,260

#### **4. Private Ground Water Well**

If the City did not sell water to the oil and gas companies through the hydrant meters, these companies would have another alternative method of obtaining water. Finley, for instance, purchased and owns the land on which it is drilling. It could obtain a permit from the Oklahoma Water Resources Board ("OWRB") to drill its own water well and extract water from the Garber-Wellington Aquifer, from which the City's wells obtain potable water.<sup>2</sup>

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<sup>1</sup> Attached to this memorandum is a chart of customers who have repeatedly rented hydrant meters for bulk water sales for the past three years. Also attached is a list of all customers who have rented a hydrant meter in the last year. A&A Tank Truck Company is an oilfield trucking company that has contracted to various drilling companies. Both Baron Exploration and Finley Resources are oil and gas exploration companies.

<sup>2</sup> It is estimated that a small water well for domestic purposes would cost approximately \$10,000 to drill. A City water well generally costs around \$100,000 to drill. It would most likely be more economical for the oil and gas company to purchase water directly from the City; however, if that was not an option, the company could utilize these other options to supply its water needs.

## 5. External source of water

In Finley's case, it could also decide to purchase water from a residence/farmer stock tank/pond, other communities or bring outside water in on tank trucks. A tank truck carrying 6,000 gallons of water would weigh slightly over 25 tons excluding the vehicle weight. Trucking in water at 6,000 gallon intervals would require over 100 trips of 25 ton cargo over Norman's roads.

### Discussion:

#### **Norman Utility Authority (NUA) alternative water use charge for Fire Hydrant bulk water sales.**

##### **Existing:**

There is a \$25 per month meter fee and the water usage charge is currently \$2.50 per 1,000 gallons.

##### **Summer Months:**

Typically, the summer months of June, July, and August create the highest water demand; i.e. peak summer demand (see attached graph). For the last several years, the Authority has been required to purchase emergency water from OKC to meet the peak demands at considerably higher cost per thousand gallons. While NUA must purchase water from OKC to supply the peak usage, the time period requiring a purchase varies from several days to several weeks. It would be problematic to change the bulk water usage charge for only the days or possibly weeks of a month a permit holder is using the hydrant meter at the same time the Authority is purchasing water from OKC. It would be difficult to determine when and how much was used through that meter on any particular day.

**Summer Alt A.** One simple method would be to establish a water usage charge for bulk water during the summer months of June, July, and August and match the OKC water rate charged to NUA for those entire months. Currently the OKC water rate is \$5.23 per 1,000 gallons.

**Summer Alt B:** Historically NUA had to purchase water from OKC for some amount of days during the months of June, July, and August. Using the last four years of history to determine the average number of days NUA purchased water from OKC it would average to 30% of the time. Therefore, the bulk water usage charge should be 70% NUA bulk water usage charge and 30% OKC emergency water rate; currently  $(70\% \times \$2.50) + (30\% \times \$5.23) = \$3.32$  per 1,000 gallons.

**Summer Alt C:** Similar to Alternative B, using the historic data to determine the total amount of water purchased from OKC in a ratio to

how much water was produced by NUA, the increase in volume of water purchased was 3%. Therefore, the bulk water rate should be 97% NUA bulk water usage charge and 3% OKC emergency water rate; currently  $(97\% \times \$2.5) + 3\% \times \$5.23) = \$2.59$

**Inverted Water Rate:**

Existing commercial customers' water rate is a flat rate. That means the cost per 1,000 gallons does not change with the volume purchased. The current commercial water rate is \$2.10 per 1,000 gallons. The inverted water rate was initiated in 1999 for residential customers to encourage conservation. The current residential rates are:

0 – 5,000 gallons	\$2.00 per thousand gallons
5,001 – 15,000 gallons	\$2.10 per thousand gallons
15,001 – 20,000 gallons	\$2.75 per thousand gallons
Over 20,000 gallons	\$4.95 per thousand gallons

Using an inverted water usage charge for bulk water sales could also be used to encourage conservation for the temporary commercial customers. For discussion purposes, a similar inverted block water usage charge established for bulk water sales from hydrants could be:

0 – 10,000 gallons	\$3.00 per thousand gallons
10,001 – 50,000 gallons	\$4.00 per thousand gallons
Over 50,000 gallons	\$5.00 per thousand gallons

**D. Water Rates, Fees and Charging**

**Value-of-Service Pricing:** Value-of-Service pricing suggests a departure from conventional rate-making methods. Information describing this method can be found in AWWA (American Water Works Association) Manual M1. Instead of analyzing and allocating costs alone, value-of-service pricing involves factors that reflect customer's perceptions about the value of utility service, as well as their willingness to pay for different levels or types of service or convenience. Customer's preferences also can be measured through valuation methods that address willingness to pay for services under various circumstances. In the particular instance of purchasing bulk water for oil/gas drilling, the value is balanced against the other options for obtaining water. Therefore pricing of water usage charges for bulk water can be administratively set, as long as consistency for all bulk water purchases through hydrant meters are met.

Attachments:

- Attachment 1. - Repeat Hydrant Meter Customers
- Attachment 2. - All Hydrant Meter Customers in the Last Year
- Attachment 3. - NUA water usage graph; Actual vs. Projected for 2014



ATTACHMENT 1Repeat Hydrant Meter Customers-  
Last 3 Years

COMPANY NAME	2011	2012	2013
A&A TANK TRUCK	357,600	468,300	587,800
AZTEC BUILDING	81,800	120,700	19,900
AZTEC BUILDING	760	6,680	0
B&H CONSTRUCTION	244,200	94,600	41,800
B&H CONSTRUCTION	62,900	199,000	142,500
B&H CONSTRUCTION	384,700	67,600	35,800
B&H CONSTRUCTION	384,700		
GAIL ARMSTRONG	10,900	4,400	2,800
GARRETT CONSTRUCTION	45,500	59,500	97,300
H&H PLUMBING	49,200	568,600	56,900
H&H PLUMBING	63,900	298,200	95,800
ICS DIRECTIONAL DRILLING	0	0	28,600
IDEAL HOMES	110,100	685,800	23,600
IDEAL HOMES	445,400	661,600	214,400
JOHNSTON UTILITY	21,500	51,500	73,600
MAJANO UTILITIES	39,200	367,300	53,700
MANHATTAN ROAD & BRIDGE	738,600	1,846,800	122,800
MATTHEWS TRENCHING	63,000	0	52,100
PRECISION BUILDERS	94,900	112,600	307,500
RUDY CONSTRUCTION	13,400	281,600	72,300
SILVER STAR	724,600	823,400	491,300
SILVER STAR	5,235,600	385,500	125,500
SILVER STAR	1,302,800	3,050,200	260,000
SILVER STAR	1,218,000	888,800	2,219,900
SILVER STAR	761,300	647,900	411,800
TERRA DEVELOPMENT	577,700	923,600	421,200
TJ CAMPBELL	31,000	711,900	626,000
URBAN CONTRACTORS	372,600	74,300	303,700
WESLEY ESTELL EXCAVATING	63,520	128,300	118,800

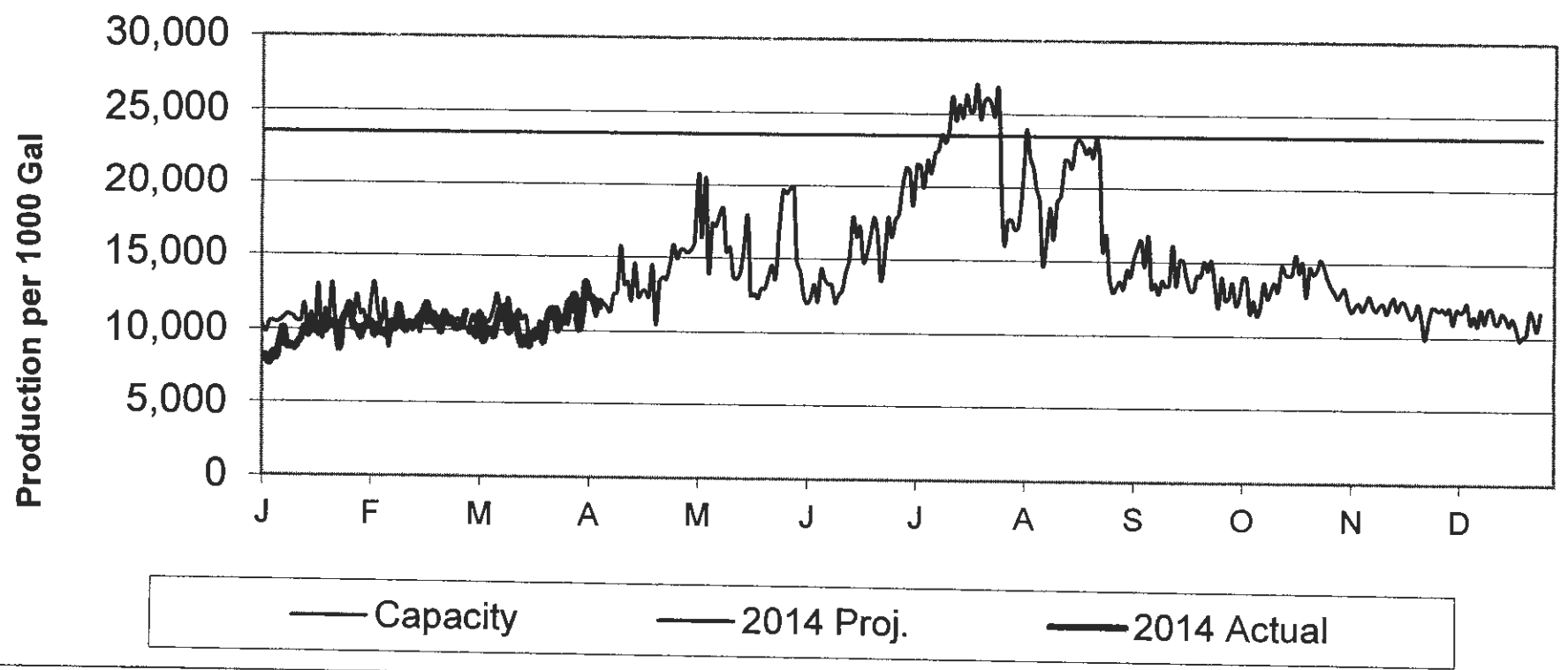
## ATTACHMENT 2.

All Hydrant Meter  
Customers within  
Last year

- 1 A&A TANK TRUCK CO
- 2 ALL ROADS PAVING
- 3 ALLEN CONTRACTING
- 4 ALLEN CONTRACTING
- 5 ARBOR HOUSE
- 6 A-TECH PAVING
- 7 AZTEC BUILDING SYSTEMS
- 8 AZTEC BUILDING SYSTEMS
- 9 B&H CONSTRUCTION
- 10 B&H CONSTRUCTION
- 11 B&H CONSTRUCTION
- 12 BARON EXPLORATION
- 13 BRADFORD BORING
- 14 BUTLER PLUMBING
- 15 BYRD BUILDING
- 16 CADDELL, NICK
- 17 CAMPBELL, TJ
- 18 CASE ASSOCIATES
- 19 CGC
- 20 CHAIN ENTERPRISE
- 21 CIRCLE K INTERNATIONAL
- 22 CITY OF NORMAN - WTP
- 23 CLARK CONSTRUCTION
- 24 CLENT COX
- 25 CONNELLY PAVING
- 26 CROSSLAND CONSTRUCTION
- 27 CRUCTHO CREEK FARMS
- 28 DANE YAW
- 29 DARRELL STANDLEE CONSTRUCTION
- 30 DIVERSIFIED SERVICE INC
- 31 DODSON THOMPSON MANSFIELD
- 32 EL RENO SOD FARM
- 33 FINLEY RESOURCES
- 34 GAIL ARMSTRONG CONSTRUCTION
- 35 GARRETT CONSTRUCTION
- 36 GIRL SCOUT TROOP 247
- 37 GREENSOURCE ENVIRONMENTAL
- 38 H&H
- 39 H&H
- 40 HEWITT SPECIALITY SERVICES
- 41 ICE CHALLENGE ENTERPRISE
- 42 ICS DIRECTIONAL DRILLING
- 43 IDEAL HOMES
- 44 IDEAL HOMES
- 45 JENNIFER NEWELL - NHVBC

46 JOHNSTON UTILITY SERVICES, INC  
47 KEYES CONSTRUCTION  
48 KING ELECTRIC  
49 L WALLACE CONSTRUCTION  
50 LANDMARK FINE HOMES  
51 LORI BOYDSTON  
52 MAJANO UTILITIES CONSTRUCTION  
53 MANHATTAN ROAD & BRIDGE  
54 MATTHEWS TRENCHING  
55 MCINNIS CONSTRUCTION  
56 MIKE MILLIGAN  
57 NASH CONSTRUCTION  
58 NORMAN LIONS CLUB  
59 NORMAN MUSIC FEST  
60 NORMAN YOUTH SOCCER ASSOC  
61 OKLAHOMA UNDERGROUND  
62 OPES INC  
63 POINDEXTER PLUMBING  
64 PRECISION BUILDERS  
65 QUICKWAY EXCAVATING  
66 RFD CONSTRUCTION  
67 RUDY CONSTRUCTION  
68 SET ENVIRONMENTAL OKLAHOMA  
69 SHERWOOD CONSTRUCTION  
70 SILVER STAR  
71 SILVER STAR  
72 SILVER STAR  
73 SILVER STAR  
74 SILVER STAR  
75 TEAM NORMAN ELITE  
76 TERRA DEVELOPMENT LLC  
77 TRI STAR PETROLEUM  
78 TRIANGLE CONSTRUCTON  
79 TURNING POINT IND  
80 URBAN CONTRACTORS  
81 URBAN CONTRACTORS  
82 VENTURE CONSTRUCTON  
83 VICKERS CONSTRUCTION  
84 WESLEY ESTELL EXCAVATING  
85 WILDCAT CONCRETE SERVICES

### NUA Actual vs Projected 2014





**TO:** Council Finance and Oversight Committees  
**THRU:** Steve Lewis, City Manager  
**FROM:** Terry Floyd, Development Coordinator  
**DATE:** April 24, 2014  
**SUBJECT:** Local Oil and Gas Ordinance Comparisons

In an effort to better understand Oil and Gas drilling Ordinance requirements in other Oklahoma City metro communities, staff has compiled the following comparisons of the Norman Ordinance, along with Ordinances from Oklahoma City, Edmond and Moore. This synopsis briefly outlines a number of topics and regulations that are common elements addressed in Oil and Gas Ordinances.

These topics include:

- Permitting/Annual Fees
- Any Special Use Permitting (SUP) or Council action required prior to permit issuance
- Zoning setbacks and distances
- Water well regulations in relation to drilling operations
- Insurance and bonding requirements for drilling operations
- Site fencing
- Roadway maintenance agreements
- Hydraulic fracturing (i.e. "fracking") regulations
- Site landscaping
- Noise mitigation

Overall, these Ordinances have many similarities, and in some cases identical language to the Norman Ordinance. There are differences in certain topics that are addressed specifically in some Ordinances, but are not addressed in others. The Norman Ordinance, along with the others surveyed do require that the applicant identify the source of water they intend to use for drilling operations as a requirement of the permit application, but none specifically regulate and/or address potable water sales as a part of the Oil and Gas Ordinance regulations. Attachment A is a matrix that outlines which of the topics listed above are addressed and/or included in the Edmond, Oklahoma City, Moore and Norman Ordinances.

During the last five years, the City of Norman has issued 13 permits for oil and gas drilling. Two of those drilling permits are currently conducting drilling operations. Of the remaining 11 permits that have been issued, three of the wells have been plugged. Currently, there are 164 active wells (producing petroleum products), not including the two wells currently being drilled. Attached is a location map that depicts existing active wells and those currently being drilled in the Norman city limits (Attachment B)

On the following pages, I've included a brief synopsis of each City's Oil and Gas Ordinance as it relates to topics listed on the previous page. The City of Norman Oil, Gas and Mineral Production Ordinance is included as Attachment C, and full electronic versions of the other Oil and Gas Ordinances from the cities surveyed can be sent upon request.

If you have any questions related to this information prior to the April 30<sup>th</sup> meeting, please feel free to contact me.

# Oil and Gas Regulations

*A Comparison of the Cities of Norman, Oklahoma City, Edmond and Moore Ordinances*

## City of Norman

### **Permitting Fee:**

- \$3,000 permit fee
- \$225 annual inspection

### **Special Use Permit (SUP) or Special Zoning District:**

- Norman's ordinance does not require a Council approval for a SUP for drilling or restrict drilling to a specific zoning area. It does, however, prohibit drilling on parcels less than 10 acres, unless there is consent from the surface owner. Additionally, there are restrictions that prohibit drilling in properties zoned as parkland, in a parkland district or in a Planned Unit Development (PUD). Finally, drilling is prohibited in areas contained or described by approved Final Plats and Rural Certificate of Surveys (COS). These restrictions result in a majority of the drilling taking place in A-2 zoned properties.

### **Zoning Setback/Land Area Requirements:**

- The following setback and land area requirements are contained in this Ordinance:
  1. No internal combustion engine drilling operations within 600 ft. from any dwelling or business structure (unless waived by the landowner)
  2. No drilling or operations within 600 ft. from any church or school (unless waived by the landowner)

### **Water Well Requirements:**

- No drilling or operations within 300 ft. of any producing freshwater well
- Domestic and public water wells within ¼ mile of enhanced recovery or disposal well tested before injection or disposal; annual testing of wells in that area required after completion *(at permittee's expense)*

### **Insurance /Bond & Letter of Credit Requirements:**

- Seepage and Pollution Policy - \$1M; \$500K for "Stripper Wells"
- Comprehensive Public Liability Policy - \$100K/person; \$300K/accident; \$200K/property damage per occurrence
- Bond or Irrevocable Letter of Credit - \$25K; can be increased to \$100K if cause is shown

### **Hydraulic Fracturing Requirements:**

- None outlined in Ordinance. As defined by State Corporation Commission.

**Road Maintenance and Repair Provisions:**

- This Ordinance contains this blanket statement regarding street/sidewalk repair provisions: "The permittee will promptly restore the streets, sidewalks, vegetation and other public property which may be disturbed or damaged in the permittee's operations to their former condition, and the permittee will promptly clear all premises of litter, trash and waste, and will, after abandonment, grade, level and restore said property to the same surface condition as practical and as possible, as existed prior to commencing operations."

**Fencing Requirements:**

- 6ft. fence "impregnable to children or animals under ordinary or foreseeable circumstances"
- Requirement can be waived or fencing type can be designated by Oil and Gas Inspector if well is 600ft. from dwelling or business structure
- Fences must be locked at all times; Oil and Gas Inspector has keys to access

**Landscaping Requirements:**

- None

**Additional Environmental Requirements:**

- Permittees are required to be in compliance with the environmental criteria outlined in the Department of Housing and Urban Development (HUD) guidebook: *Siting of HUD-Assisted Projects Near Hazardous Facilities*.
- All leaks and spills over 2 barrels are to be reported to the Oil and Gas Inspector within 24 hours
- All circulation and circulation mud pits for oil and gas wells drilled in the Lake Thunderbird drainage basin are required to be metal tanks or vessels. Any chemical or substances placed in these pits are required to be approved as part of the mud program submitted for application for the drilling permit. All contents of the tanks or vessels are required to be removed from the site and transported to a disposal facility during operation and completion of well drilling.

**Noise Regulation:**

- As outlined in the City Noise Ordinance

**City of Oklahoma City****Permitting Fee:**

- \$550 application fee
- \$3,200 permit fee
- \$220 annual operating fee



**Special Use Permit (SUP) or Special Zoning District:**

- Administrative permits required for drilling in the Oil and Gas District or U-7 (in and around the I-35/I-235 area).
- Permits can be issued to drill outside of these defined zones through Board of Adjustment decision or journal entry of judgment granting right to drill at the location, but it is staff's understanding from OKC staff that new drilling permits that have been coming forward recently have been going through the Board of Adjustments for variance approval .

**Zoning Setback/Land Area Requirements:**

- Prohibited within 300 ft. of any structure or building for human occupancy unless permission has been granted by the property owner
- Prohibited within any location closer than 600 ft. to any public building, school or religious building, unless permission has been granted by building owners.

**Water Well Requirements:**

- Drilled fresh water supply wells require OWRB approval
- Must not be drilled deeper than 200 ft. above the base of the Garber-Wellington aquifer
- At the completion of the drilling operations, the well must be plugged or ownership transferred to property owner
- Additional drilling regulations related to watershed areas of Oklahoma City Water Reservoirs, other areas near the reservoirs and areas near Arcadia Lake. These regulations relate to specific setback distances, spill control plans, protection dikes, pipe casing requirements, equipment specifications and additional controls for any drilling permit issued for these areas.

**Insurance /Bond & Letter of Credit Requirements:**

- Pollution Insurance Policy - \$1M (if drilling within Garber Wellington recharge area)
- Comprehensive Public Liability Policy - \$100K/person; \$300K/accident; \$200K/property damage per occurrence
- Bond or Irrevocable Letter of Credit - \$25K; can be increased to \$100K if cause is shown

**Hydraulic Fracturing Requirements:**

- Ordinance contains the following statement: "In the completion of an oil and gas, injection, disposal or service well, where acidizing or fracturing processes are used, no oil, gas, or other deleterious substances or pollutants shall be permitted to pollute any surface or subsurface fresh waters."

**Road Maintenance and Repair Provisions:**

- This Ordinance contains a statement very similar to the statement included in the Norman Ordinance.

**Fencing Requirements:**

- Sight proof fence (able to keep out people and animals) around well.
- Different fencing types (including non-sight proof) can be granted by the Oil and Gas Inspector.

**Landscaping Requirements:**

- Required for any well with 600 feet of any occupied or unoccupied dwelling.
- Evergreen vegetation(6ft. in height) or earth berms completely around the well site, fences and other equipment.
- Must be kept in good condition at all times

**Noise Regulation:**

- Ordinance contains the following statement: "All drilling and production operations shall be conducted in such a manner as to eliminate, as far as possible, dust, noise, vibration or noxious odors, and shall be in accordance with the best available technology incident to exploration for, drilling for or production of oil, gas and other hydrocarbon substances. Proven technological improvements in exploration, drilling and production methods shall be adopted as they become available, if capable of reducing factors of nuisance and annoyance.

**City of Edmond**

**Permitting Fee:**

- \$3,500 application filing fee
- \$250 annual inspection fee

**Special Use Permit (SUP) or Special Zoning District**

- Drilling permit applicants are required to obtain a Special Use Permit by the Edmond City Council (w/Planning Commission review) prior to applying for a permit.

**Zoning Setback/Land Area Requirements**

- Prohibited within 300 ft. of any residence, commercial building or producing fresh water well
- Distance can be reduced to 200 ft. with written consent of property owners within the radius. Water well separation cannot be reduced.

**Water Well Requirements**

- Testing of fresh water wells within a 1000 ft. radius of a proposed well may be requested by Council as a provision of the drilling permit
- Fresh water wells within a 1000 ft. radius of an enhanced recovery or disposal well shall be tested semi-annually

### **Insurance /Bond & Letter of Credit Requirements**

- Bond or Irrevocable Letter of Credit - \$25K; can be increased to \$100K if cause is shown
- Seepage and Pollution Policy - \$1M
- Comprehensive Public Liability Policy - \$1M per occurrence

### **Hydraulic Fracturing Requirements**

- Ordinance has identical language to OKC Ordinance, with the addition of one sentence outlining all fluids produced from fracturing or acidizing are to be put into tanks.

### **Road Maintenance and Repair Provisions**

- Similar statement to the Norman Ordinance

### **Noise Regulation**

- Similar language to Oklahoma City Ordinance

### **Landscaping Requirements**

- None

### **Fencing Requirements:**

- Required to keep out persons and animals.
- Can be waived by Council if fence is in an area not projected for imminent urban development
- Council can designate fencing type as well

## **City of Moore**

### **Permitting Fee:**

- \$5,000 application fee; \$5,000 permit fee
- \$450 annual inspection

### **Special Use Permit (SUP) or Special Zoning District:**

- This ordinance requires Council approval before a drilling permit is issued. Drilling is not restricted to a specific zoning area. The Ordinance does, however, require identification of the well location within a 10 acre tract.

### **Zoning Setback/Land Area Requirements:**

- Drilling operations and production tanks are prohibited within 600 ft. of any church, school building, residence, industry, commercial building, public or private water well or any other "structure where people congregate"

**Water Well Requirements:**

- Drilling operations and production tanks are prohibited within 600 ft. of a public or private water well.
- A test water well is required to be drilled and maintained for all enhanced recovery or disposal well permits within 200 ft. of the recovery/disposal well location. The well is to be tested every 6 months by a professional engineer, and a certified analysis report is to be given to the Oil and Gas Inspector during the entire period of recovery/disposal well maintenance and operation.

**Insurance /Bond & Letter of Credit Requirements:**

- Pollution Liability Insurance Policy - \$1M
- Comprehensive Public Liability Policy - \$100K/person; \$300K/accident; \$200K/property damage per occurrence
  - *after drilling operations are completed, the amounts can be reduced to \$50 K/person; \$100 K/accident; \$50K/ property damage per occurrence*
- Bond or Irrevocable Letter of Credit - \$25K
  - *can be decreased to \$10K after drilling operations are completed*

**Hydraulic Fracturing Requirements:**

- None outlined in Ordinance

**Road Maintenance and Repair Provisions:**

- This Ordinance contains the same statement as the Norman and Oklahoma City Ordinances regarding street/sidewalk repair provisions.

**Noise Regulation:**

- None specifically outlined in the Ordinance, but all equipment used in drilling/production operations is required to be muffled.

**Landscaping Requirements:**

- Evergreen trees (2 in. caliper; 6ft. height at maturity) are required at 30ft. spacings (off center) completely around the well site, storage tanks, fencing or lease equipment and must be kept in good condition.

**Fencing Requirements:**

- Oil and gas well and/or storage tanks are required to be enclosed by a 6 ft., sight-proof fence.
- Production tanks required to be painted an "earth-tone to blend in with landscape"

*Attachment A: Comparison Matrix- Oil and Gas Ordinances: Norman, Oklahoma City, Moore & Edmond*

*Attachment B: Map of Active Well Sites in the Norman City Limits*

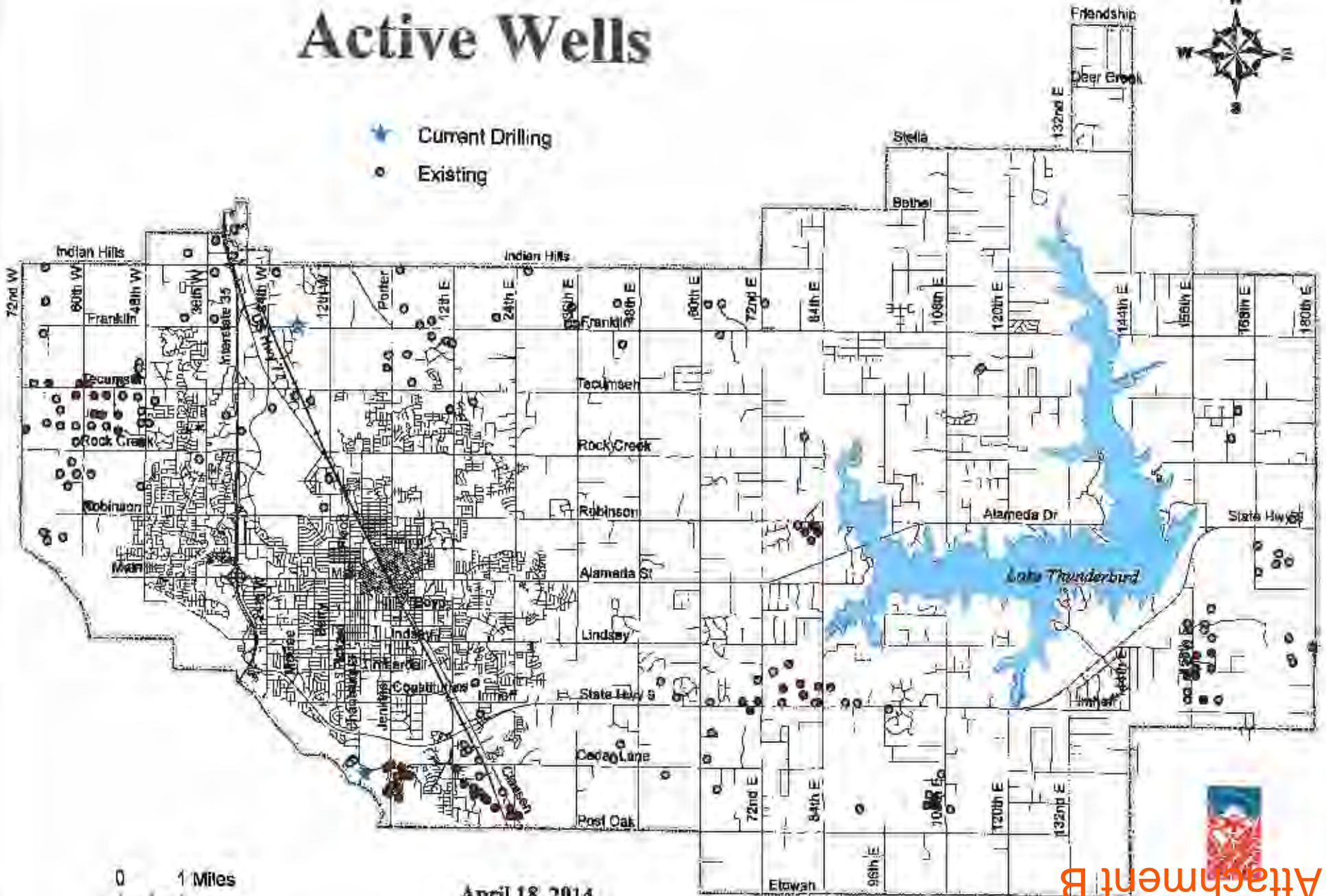
*Attachment C: City of Norman Oil, Gas and Mineral Production Ordinance*

	Norman	Oklahoma City	Edmond	Moore
SUP/Zoning District Restriction/Council Consideration		X	X	X
Setback Requirements	X	X	X	X
Bond or Irrevocable Letter of Credit Required	X	X	X	X
Insurance Requirements	X	X	X	X
Water Well Regulations in Relation to Drilling Operations	X	X	X	X
Hydraulic Fracturing Regulations		X	X	
Road Maintenance and Repair Addressed	X	X	X	X
Fence Requirements	X	X	X	X
Landscaping Requirements		X		X
Noise Regulation	X	X	X	
Drilling Permit Fee	\$3,000	\$550 application fee; \$2,200 permit fee	\$3,500	\$3,000 application fee; \$5,000 permit fee

Attachment A

# Active Wells

- ★ Current Drilling
- Existing



0 1 Miles

April 18, 2014

Attachment B



Map Produced by the City of Norman  
Geographic Information Systems  
(405) 280-5315  
The City of Norman assumes no  
responsibility for errors or omissions  
in the information presented.

ARTICLE XV. OIL, GAS AND MINERAL PRODUCTION <sup>(11)</sup>

Sec. 13-1500. Intent and purpose.

Sec. 13-1501. Permits required.

Sec. 13-1502. Blanket bond or blanket irrevocable letter of credit required.

Sec. 13-1502.1. Insurance requirements.

Sec. 13-1503. Definitions.

Sec. 13-1504. Casing.

Sec. 13-1505. Earthen circulation pits.

Sec. 13-1506. Earthen retaining wall.

Sec. 13-1507. Earthen reserve pits.

Sec. 13-1508. Premises maintained.

Sec. 13-1509. Production prohibitions.

Sec. 13-1510. Reserve pits and mud circulation pits in Lake Thunderbird drainage basin.

Sec. 13-1511. Safety devices and practices.

Sec. 13-1512. Storage tanks.

Sec. 13-1513. Tubing.

Sec. 13-1514. Injection wells.

Sec. 13-1515. Lease roads.

Sec. 13-1516. Approaches.

Sec. 13-1517. Determination of routes to well sites.

Sec. 13-1518. Sign.

Sec. 13-1519. Plugging of wells.

Sec. 13-1520. Completion.

Sec. 13-1521. Motive power.

Sec. 13-1522. Oil and Gas Inspector.

Sec. 13-1523. Penalties.

**Sec. 13-1500. Intent and purpose.**

Whereas the imprudent operation of an oil and gas facility can constitute a menace to the public health, safety and welfare of the City of Norman, it is the intent and purpose of this article that oil and gas operations be reasonably regulated for the public good.

**Sec. 13-1501. Permits required.**

- (a) No person shall drill, reenter, maintain or operate an oil, gas or disposal well, or otherwise mine or produce other minerals, without having previously obtained an appropriate permit from the Oil and Gas Inspector as provided in this section.
- (1) An oil/gas well drilling permit of three thousand dollars (\$3,000.00) shall be required. The term of said permit shall be for a period of one (1) year from the date of issuance;
  - (2) An annual inspection fee of two hundred twenty-five dollars (\$225.00) shall be required

per year;

- (3) A re-entry permit of one thousand dollars (\$1,000.00) shall be required. The term of said permit shall be for a period of one (1) year from the date of issuance;
  - (4) A convert to injection permit of one thousand dollars (\$1,000.00) shall be required. The term of said permit shall be a period of one (1) year from the date of issuance; and
  - (5) A plugging permit fee of two hundred fifty dollars (\$250.00) shall be required.
- (b) In addition to the information required in Article I of this chapter, all applicants desiring a permit to drill, reenter, maintain or operate an oil, gas or disposal well shall submit:
- (1) A description of the location of the well, specifying and identifying the well location within a particular ten (10) acre tract within a specific quarter, section, township and range, including thereon the distance to all existing dwelling houses, buildings or other structures designed for the occupancy of human beings or animals within six hundred sixty (660) feet of any such well, and the location of all known existing oil, gas or fresh water wells within said ten (10) acre tract;
  - (2) A list of all equipment that will be utilized in the drilling, operation or maintenance of the particular well;
  - (3) The mud program to be utilized on that particular well;
  - (4) A copy of the approved drilling permit from the Corporation Commission and a copy of the staking plat;
  - (5) The size, depth and quality of surface and production casing;
  - (6) A statement of the provisions for water for the drilling rig;
  - (7) A written plan for disposal of deleterious substances produced during the drilling operations and any deleterious substances produced as a result of production from the well. This plan shall include the method of transportation for the deleterious substances and the name and location of the permitted disposal site, including a copy of the permit for the disposal site and a contract with the owner of the permitted site for the disposal of said deleterious substances, or in the alternative, provide proof of ownership of the permitted disposal site. The permittee shall provide monthly reports to the City of the amount of salt water and other deleterious substances produced, along with receipts for disposal of same;
  - (8) The names of the surface and surface lease owners;
  - (9) A drilling prognosis, to specify in detail the amount, weight and size of conductor pipe and surface pipe and the procedures to be used for cementing such. Plugging procedures to be used in the event production is not established shall also be specified;
  - (10) A statement of verification by the applicant that all submitted information is accurate.
  - (11) Copy of receipts reflecting notice, by certified mail, to all property owners within three hundred (300) feet of the exterior of the entire well site (including all accessory equipment), notifying them of applicant's intention to drill a well.
- (c) An application for the permit to drill or reenter a well for enhanced recovery or substance disposal shall be in the same form as required for a permit to drill an original well and shall contain the following additional information:
- (1) A block map of the well site, showing all equipment to be used at the site, location of pipelines, access road, and distances from the well to any and all fences, public roadways and buildings within a radius of three hundred (300) feet;
  - (2) A block map of the project, showing the location of:
    - a. All water supply wells within a one-quarter-mile radius of each injection or disposal well;



- b. All public water supply wells, disposal wells, injection wells, producing wells, and plugged and abandoned wells within the project area and those sections immediately adjacent;
  - c. All conduits; and
  - d. Tank battery, pumping station and appurtenant equipment;
- (3) All wells within the project area and those sections immediately adjacent shall be indicated by status (e.g., plugged and abandoned, injection, salt water, oil, etc.) and show the following additional information:
- a. Footage location (surface casing);
  - b. Derrick floor and ground level elevation;
  - c. Drilled total depth;
  - d. Packer total depth;
  - e. Size, depth and A.P.I. grade of surface and production casing, including zones from which casing has been removed;
  - f. Location of all plugs, packers, cement plugs, tubing anchors, etc., with the well bore;
  - g. Depth and nature of all cement squeeze jobs;
  - h. Formation name and depth of all open perforations in a producing open hole;
  - i. Volume and type of cement used on surface and production strings; and
  - j. Top of cement (measured or calculated);
- (4) One (1) copy of all electric, mechanical, sample and driller's logs. These logs shall be held in confidential files for a period not to exceed one (1) year from the date the last submitted formation evaluation type wire line log was run. An extension of six (6) months may be granted administratively by the Oil and Gas Inspector, upon approval of a written request from the current operator of the well;
- (5) Operation name for each well;
- (6) One (1) copy of all cement bond logs and production logs;
- (7) One (1) copy of all work performed on the well;
- (8) Copies of all information supplied to the Corporation Commission, and said Commission's approval of the project;
- (9) All operators, contractors, drillers, service companies, pipe-pulling and salvaging contractors, or other persons, shall be knowledgeable of and prepared to implement, if necessary, emergency procedures as detailed in the Oklahoma Corporation Commission's "Guidelines for Petroleum Emergency Field Situations in the State of Oklahoma."
- (d) An annual inspection fee of (\$225.00) two hundred twenty-five dollars shall be paid for each well operated or maintained under a permit issued by the City. Such fee is due on or before June 30 of each calendar year. Failure to pay the required permit fee by June 30 of each calendar year will result in a late charge of two hundred twenty-five dollars (\$225.00) per well.

Ord. No. 3-5243-111 Ord. No. 0-8558-51 Ord. No. 0-8447-53 Ord. No. 0-8097-12 Ord. No. 0-822-111 C. S. M. 0-13,14-11

### **Sec. 13-1502. Blanket bond or blanket irrevocable letter of credit required.**

- (a) Prior to the issuance of any permits, any person who drills or operators any well for the exploration, development or production of oil or gas, or as an injection or disposal well, within this City shall furnish on forms approved by the City's Legal Department and maintain at all times a blanket bond or blanket irrevocable letter of credit in the principal sum of at least

twenty-five thousand dollars (\$25,000.00). Said bond or letter of credit must be executed by a reliable insurance company or bank authorized to do business in the state, as surety or creditor, and with the applicant/permittee as principal or debtor, running to the City for the benefit of the City and all person concerned, conditioned that the applicant/permittee shall comply with the terms and conditions of this chapter in the drilling and operation of oil wells drilled or operated within the City. Said bond or letter of credit must become effective on or before the date the same is filed with the City and remain in full force and effect for at least twelve (12) months subsequent to the expiration of the permit term and, in addition, the bond or letter of credit must be conditioned that the applicant/permittee must promptly pay all fines, penalties and other assessments imposed upon the applicant/permittee by reason of his breach of any of the terms, provisions or conditions of this chapter, and that the applicant/permittee must promptly restore the streets, sidewalks and other public property of the City which may be disturbed or damaged during the applicant/permittee's operations to their former conditions; that the applicant/permittee must promptly clear all premises of all litter, trash, waste and other substances and must, after abandonment, grade, level and restore said property to the same surface condition, as far as possible, as existed prior to commencing operations; further that the applicant/permittee shall indemnify and hold harmless the City from any and all liability attributable to granting the permit; that the applicant/permittee shall promptly pay all sums with respect to deductibles on covered losses under insurance policies required by this chapter; and that the applicant/permittee shall comply with all of the terms of this chapter concerning the abandonment and/or plugging of all such wells. Each bond or letter of credit submitted shall cover all wells drilled or operated by said person within the City.

- (b) For good cause, the Oil and Gas Inspector, after consulting with and receiving approval from the City's Legal Department, may require the filing of a blanket bond or letter of credit in an amount higher than twenty-five thousand dollars (\$25,000.00), but not to exceed one hundred thousand dollars (\$100,000.00) by the permittee. "Good cause" shall include, but shall not be limited to, a showing that the operator or permittee has previously violated any of the provisions of Chapter 13, Article 15 of this Code.
- (c) The blanket bond or letter of credit required by this section shall be submitted and maintained in full force and effect at all times by all persons drilling, completing, operating, maintaining and/or producing any well located within the limits of the City.
- (d) Upon noncompliance with the above-listed conditions, the cash amount or the blanket bond or blanket irrevocable letter of credit shall be forfeited and shall provide for the plugging of the well and/or restoration of the land's surface.

#### **Sec. 13-1502.1. Insurance requirements.**

- (a) Prior to the issuance of any permit, the applicant shall deposit a copy of the following insurance policies issued by a corporate insurer licensed to do business in the State of Oklahoma:
  - (1) A policy or policies covering seepage and pollution in an amount not less than one million dollars (\$1,000,000.00) for each occurrence, except stripper wells, which may be reduced to five hundred thousand dollars (\$500,000.00) coverage; and such policy shall contain coverage for contamination or pollution of surface or subterranean streams, watercourses, lakes or public or private water supplies.
  - (2) A policy or policies of standard comprehensive public liability insurance, including contractual liability covering:
    - a. Bodily injury: One hundred thousand dollars (\$100,000.00) per person; three hundred thousand dollars (\$300,000.00) per accident or occurrence; and

- b. Property damage: Two hundred thousand dollars (\$200,000.00) per accident or occurrence.
- (b) All such policies shall include the City as an additional insured.
- (c) Thirty (30) days' notice of cancellation shall be provided to the City of Norman, Office of City Attorney/Code Enforcement, P. O. Box-370, Norman, Oklahoma 73070.

### Sec. 13-1503. Definitions.

The following words and phrases, when used in this article, shall, for the purposes of this article, have the meanings respectively ascribed to them in this section, except where the context otherwise requires:

*Abandoned well:*

- (1) Each well in which no production casing has been run, and for which drilling or testing operations have ceased for thirty (30) consecutive days; or
- (2) Any other well for which there is no current city permit.

*Circulating mud pit:* The working pit from which drilling muds are continuously recirculated during the drilling process into and from the drilling hole for the purpose of flushing therefrom the drill bit cuttings and as a lubricant to reduce torque, drag, heat, friction and differential sticking during the drilling process.

*Deliterious substance:* Any chemical, salt water, oil field brine, waste oil, waste emulsified oil, basic sediment, mud or injurious substances produced or used in the drilling, development, producing, transportation, refining and processing of oil, gas or condensate.

*Disposal or injection well:* Any well drilled or actually used for injection of salt water or other substances into the earth different than the point of extraction or production thereof from the earth.

*Enhanced recovery:* An operation by which fluid or energy is introduced into a source of supply for the purpose of facilitating recovery therefrom.

*Lake Thunderbird drainage basin:* That land encompassed by the following legal description: Secs. 18, 19, 30, 31 and 32, T10N R1E of I.M.; Secs. 25, 26, 27, 32, 33, 34, 35 and 36, T10N R1W of I.M.; S/2 of Sec. 34 and that part of Sec. 35 annexed by Ordinances 1323, 1324 and 1361, less the portion deannexed by Ordinance No. 1428, T10N R3W of I.M.; Secs. 3, 4, 5, 6, 7, 8, 9, the W/2 of Sec. 10, the W/2 of Sec. 16, Secs. 17, 18, 19, 20, the W/2 of Sec. 21, the NW/4 of Sec. 28, Secs. 28, 30, 31, and the W/2 of Sec. 32, T9N R1E of I.M.; Secs. 1 through 36, T9N R1W of I.M.; Secs. 1 through 16, the E/2 of the NW/4 of Sec. 19, Secs. 20 through 28, the NE/4 of Sec. 29, the E/2 of Sec. 33, and Secs. 34, 35 and 36, T8N R2W of I.M.; Secs. 1, 2, 3, the E/2 of Sec. 4, Secs. 10, 11, 12, 13, and the E/2 and NW/4 of Sec. 14, the NE/4 of Sec. 15, and the NE/4 of Sec. 24, T8N R3W of I.M.; the W/2 and NE/4 of Sec. 6 and the W/2 of Sec. 7, T8N R1E of I.M.; Secs. 1 through 23, and the W/2 of Sec. 24, T8N R1W of I.M.; Secs. 1, 2, 3, the SE/4 of Sec. 9, Secs. 10, 11, 12, 13, 14, the E/2 and the NW/4 of Sec. 15, and the NE/4 of Sec. 15, T8N R2W of I.M.; all in Cleveland County, Oklahoma.

*Mud:* The drilling fluid used and recirculated through the drilling hole as a lubricant to reduce torque, drag, heat, friction and differential sticking and to flush drill bit cuttings from the hole during the drilling process.

*Mud program:* The planning usage of drilling fluid lubricants, specifying with particularity the type, name and physical and chemical composition and characteristics of all ingredients thereof.

together with such laboratory and other technical data as may be necessary or required by the Public Works Department to evaluate the same as polluting or deleterious, as enumerated in the current EPA Priority Pollutant Series listing.

*Oil or gas well:* Any well drilled, operated or maintained for the production of oil, gas, casinghead gas, or any of them or their by-products or derivatives.

*Pollution:* The contamination or other alteration of the physical, chemical or biological properties of any natural waters of the City, or such discharge of any liquid, gaseous or solid substance into any water of the City as will, or is likely to, create a nuisance or render such waters harmful or detrimental or injurious to public health, safety or welfare; to domestic, commercial, industrial, agricultural, recreational or other beneficial uses; or the livestock, animals or aquatic life.

*Reserve pit:* Any excavation, pit or receptacle designed or actually used to receive, store or hold rocks, drill bit cuttings, shale, sand, fresh water or drilling mud that contains no salt water, oil, oil derivatives, caustics, acids or other deleterious substances harmful to soil or vegetation, or injurious to animal or human life.

*Salt Water:* As used in this ordinance shall mean any water containing more than 500 mg/l chlorides.

*Slush pit:* An excavation, pit or receptacle, designed or actually used to receive, store or hold waste oil, oil derivatives, sand, salt water or other waste products or deleterious substances produced or used in the drilling, swabbing, cleaning or reworking of any oil, gas or disposal well.

*Stripper wells:* Any well which produces ten (10) barrels of oil or less per day. To qualify as a stripper well, the operator of the well will have to provide the City Oil and Gas Inspector with copies of the Corporation Commission Production Forms for the previous year, then every year before July 1, thereafter, to qualify for the next fiscal year.

*Treatable water:* Surface and subsurface water in its natural state which may or may not require treatment to be useful for human consumption and contains less than ten thousand (10,000) mg/l total dissolved solids and/or five thousand (5,000) mg/l chlorides.

City of Dallas, Texas, Ordinance No. 1154

Ordinance No. 1154, Chapter 13, Subchapter C, Section 13-1504, (11/15)

### **Sec. 13-1504. Casing.**

- (a) The provisions of this section shall apply to all oil, gas, injection and disposal wells.
- (b) Suitable and sufficient surface casing or a stage collar shall be installed to a depth of at least one thousand (1,000) feet below the surface or a depth of two hundred (200) feet below treatable water strata encountered in the well, whichever is deeper, and the annular space behind the casing shall be filled with cement from the base of the surface casing, or from the stage collar, to the surface of the ground, by either pump and plug method or by the displacement method. No further drilling shall be accomplished until the cement has set for at least eight (8) hours. No braden head cement job shall be performed between the surface casing and any other casing string except by special order of the Corporation Commission.
  - (1) Production casing of a size not less than four and one-half (4½) inches outside diameter, in good condition, shall be set no higher than the top of the producing formation and cemented with a sufficient amount of cement to obtain a minimum of five hundred (500) feet of annular fillup above the casing.

- (c) The casing shall be tested before drilling the cement plug, at a minimum pressure of one thousand (1,000) pounds per square inch held for one (1) hour. Whenever the pressure drops five (5) percent within the hour, the casing will be deemed inadequate and shall be repaired and retested until the requirements hereof are met.
- (d) Permittee shall fill out a form provided by the Oil and Gas Inspector showing the results of the casing pressure test. The test results shall be filed with the Oil and Gas Inspector upon completion of such test. The Oil and Gas Inspector shall be notified in advance of the casing pressure test to enable him to be present if he so chooses.
- (e) Rupture in surface casing. In the event a rupture, break or opening occurs in the surface production casing, the permittee or the operator or drilling contractor shall take immediate action to repair it, and shall report the incident to the Oil and Gas Inspector promptly.

Oil and Gas Inspector (10/1/1987)

### Sec. 13-1505. Earthen circulation pits.

- (a) Except in those areas of the Lake Thunderbird basin or Garber-Wellington Aquifer recharge area, earthen circulation pits may be constructed or used in connection with the drilling, swabbing, cleaning out or reworking of oil or gas wells. All earthen circulation pits will be vinyl lined, and the contents of such pits will be hauled to a disposal facility.
- (b) Such circulation pits shall be leveled and the surface of the ground restored as nearly as possible to its original condition within thirty (30) days after completion of said drilling, swabbing, cleanout or reworking operations.

Oil and Gas Inspector (10/1/1987)

### Sec. 13-1506. Earthen retaining wall.

- (a) The applicant shall submit maps and drawings showing the means to be used for diverting surface water from the drilling/production site.
- (b) Each owner and operator is required to construct and maintain dikes or berms surrounding the facility adequate to prevent downward or lateral seepage of deleterious materials. Size and location of dikes and berms [are] to be determined by the Oil and Gas Inspector.

Oil and Gas Inspector (10/1/1987)

### Sec. 13-1507. Earthen reserve pits.

- (a) Steel mud or circulating pits shall be used. Such pits and contents shall be removed from the premises and the drilling site within fifteen (15) days after completion of the well. Earthen pits will be allowed only as temporary emergency pits and/or as catch basins. Catch basin pits shall be used only for the purpose of catching any deleterious substance runoff and shall be no greater than three hundred twenty (320) cubic feet in volume. Such catch basins will be equipped with a liquid level-activated pump designed to keep fluids pumped out of such catch basin pits. All such earthen pits must be lined and approved in writing by the Oil and Gas Inspector. Emergency pits shall be emptied as soon as the emergency is over and all such pits shall be emptied and then leveled within fifteen (15) days after completion of the well.
- (b) All waste oil, salt water, liquid with oil content, gasoline or other oil derivatives or by-products, sand, sludge or other waste produced in connection with the drilling, testing, cleaning, swabbing, reworking or operating of any oil, gas or disposal well shall be captured and retained in steel tanks or vessels and transported from the premises to a disposal facility.
- (c) No person shall permit such substances to escape from the premises owned, leased or controlled by the persons conducting such operations by seepage, overflow or otherwise, nor

flow across the surface of the ground or upon any public way, into any storm or sanitary sewer, drainage ditch, upon any gutter or paving or into any galloway, stream or tributary.

#### **Sec. 13-1508. Premises maintained.**

- (a) The premises upon which any oil, gas or disposal well is drilled, operated or maintained shall be kept free of all accumulations of rubbish, litter, unused equipment or materials, excess rotary mud, salt water, waste oil or oil by-products and other waste, insofar as the same may be reasonably done in the conduct of operations.
- (b) The permittee will promptly restore the streets, sidewalks, vegetation and other public property which may be disturbed or damaged in the permittee's operations to their former condition, and the permittee will promptly clear all premises of all litter, trash and waste, and will, after abandonment, grade, level and restore said property to the same surface condition as practical and as possible, as existed prior to commencing operations.
- (c) Any person who completes any well as a producer shall enclose such well, together with its surface facilities, by a fence at least six (6) feet high and constructed of a material and in a manner so as to be impregnable to children and animals under ordinary or foreseeable circumstances; provided, that where the well site is greater than six hundred (600) feet from a dwelling or business structure, the Oil and Gas Inspector may waive the requirement of a fence or may designate the type of fence to be erected. Fences must be kept locked at all times when workers of the permittee are not present. A duplicate set of keys to such lock shall be filed with the Oil and Gas Inspector.
- (d) All lines that leave the premises (drilling pad), whether oil or gas, shall be buried in a trench so the top of the pipe is no less than three (3) feet deep and shall be pressure tested at a minimum of one hundred fifty (150) percent of the normal working pressure held for one (1) hour. The Oil and Gas Inspector shall be notified forty-eight (48) hours before the trench is started and in advance of the pressure test and may supervise same.
- (e) All leaks or spills, including, but not limited to, oil and salt water, over two (2) barrels are to be reported to the Oil and Gas Inspector within twenty-four (24) hours.
- (f) The operator shall maintain the premises of the growth of grass and weeds to less than twelve (12) inches in height along the lease road and within the designated well site area.

#### **Sec. 13-1509. Production prohibitions.**

- (a) No person shall drill, mine or produce or cause to be drilled, mined or produced any gas, oil or other materials in the Norman City limits without first obtaining a permit from the Oil and Gas Inspector as provided in section 13-1501 of this chapter. However, oil and gas exploration permits shall not be granted on any parcel of land:
  - (1) Containing ten (10) acres or less except upon written consent of the surface owner;
  - (2) Contained or described by any approved Final Plat;
  - (3) Contained or described by an approved certificate of survey subdivision as per section 19-607;
  - (4) Unless the applicant is in compliance with environmental criteria and standards as outlined in a Department of Housing and Urban Development guidebook entitled, *Siting of HUD-Assisted Projects Near Hazardous Facilities* (HUD-1060-CPD, second version, April, 1987), which is incorporated herein;
  - (5) Zoned PL, Park Land District or Planned Unit Development District (PUD) by the City

Council.

- (b) No steam, gasoline, natural gas, diesel or other internal combustion engine of any kind shall be operated in conjunction with the drilling and/or operation of an oil or gas well within six hundred (600) feet of any dwelling or business structure unless waived by the landowner.
- (c) No oil, gas or disposal well shall be drilled, operated, or maintained, nor shall any operation in connection therewith be carried on or conducted within six hundred (600) feet of any church or school, unless waived by the landowner, or within three hundred (300) feet of any producing freshwater well.
- (d) In granting a permit, the Oil and Gas Inspector may impose requirements for much of the following but not limited to the following as may be reasonably necessary to protect the health, welfare and safety of persons and property:
  - (1) Protective berms, including landscaping thereof;
  - (2) Electric motors for pumping a completed well;
  - (3) Prohibition of earthen circulation pits; and
  - (4) Designating routes and prohibiting tragic access to the well site through residential areas.

(Ord. 13-1509, 2013-05-14; Ord. 13-1510, 2013-05-14; Ord. 13-1511, 2013-05-14; Ord. 13-1512, 2013-05-14)

#### **Sec. 13-1510. Reserve pits and mud circulation pits in Lake Thunderbird drainage basin.**

- (a) Circulation pits located in the Lake Thunderbird drainage basin shall be exclusively metal tanks or vessels.
- (b) All circulating mud pits utilized within such area shall likewise be exclusively of metal construction.
- (c) No chemicals or substances shall be placed in said reserved or circulating mud pits except as indicated in the mud program approved by the Public Works Department at the time of issuance of the drilling permit and all contents of such reserve and circulating mud pits shall, during operation and upon completion of the drilling of said well, be transported from the premises to a disposal facility.

(Ord. 13-1510, 2013-05-14)

#### **Sec. 13-1511. Safety devices and practices.**

- (a) Approved equipment, standard devices and all ordinary methods commonly known and used in the oil and gas drilling and producing industry for the safety and protection of property from damage due to drilling and operating activities shall be used at all locations. Failure on the part of any owner, driller or operator to utilize such equipment, devices or methods shall be the basis for injunction thereof by the City or any person affected thereby, in addition to any penalties provided in this chapter.
- (b) All drilling wells shall be equipped with a master gate or its equivalent, adequate blowout preventers, flow lines and valves commensurate with the working pressures involved.

(Ord. 13-1511, 2013-05-14)

#### **Sec. 13-1512. Storage tanks.**

- (a) Storage tanks or other types of tanks containing flammable substances used in connection with any oil, gas or disposal well shall have earthen embankments constructed around them, all

sufficient size and height to be able to adequately contain one and one-half (1½) times the volume of such tanks should a rupture occur at the floor of such tanks.

- (b) No drain plugs, openings or siphons shall be placed in the walls of dikes, which will permit the escape of any liquids through the same.
- (c) No such tank shall be located closer than one hundred (100) feet to a street or highway, nor closer than six hundred (600) feet to a dwelling, business structure, church or school, unless the distance requirement is waived by the affected landowner.
- (d) Storage tank areas shall be kept free of all liquids, vegetation and debris.
- (e) All service lines that protrude over or out of the dike or retaining berm shall be equipped with a valve that can be locked. This valve will be kept locked unless the tanks are being serviced.
- (f) Stripper storage tanks. Storage and other types of tanks containing flammable substances used in connection with any stripper well shall have earthen embankments constructed around them of sufficient size and height to be able to adequately contain two (2) times the volume of such tanks should a rupture occur at the floor of such tanks.

Ord. 009650 - 10/10/07 - 10/10/07 - 10/10/07

### Sec. 13-1513. Tubing.

- (a) Upon completion of any flowing well, the wellhead equipment shall have, on the tubing, at least one (1) master valve plus a flow valve and a valve on the casing annulus.
- (b) All producing wells shall be equipped with flow tubing, separate from the production casing, extending from not less than fifty (50) feet from the top of the lowest producing formation.
- (c) All disposal wells/injection shall be equipped with flow tubing set on a packer and a pressure gauge in good working condition shall be installed on the flow tubing at all times.

Ord. 009650 - 10/10/07 - 10/10/07 - 10/10/07

### Sec. 13-1514. Injection wells.

- (a) Every such injection or disposal well shall be constructed so as to seal the injection zone from the upper portion of the casing. The annulus between the injection tubing and the casing shall be filled with a noncorrosive fluid, then sealed, and a one-fourth-inch female fitting with cut-off valve shall be attached so that the pressure in the annulus may be measured by the Oil and Gas Inspector by attaching a gauge having a one-fourth-inch male fitting. A pressure shall be maintained in the annulus of not less than twenty-five (25) psi at all times to insure the integrity of the packer, tubing and casing. Any significant deviation from the established pressure shall be cause to shut down the well and may result in cancellation of the operating permit until such times as the established pressure can once again be maintained.
- (b) Injection lines shall be buried in a trench of a depth so that the top of the pipe is no less than three (3) feet, and shall be pressure tested (static) annually, at a minimum of one hundred fifty (150) percent of the pressure normally encountered at the injection pump discharge, for a period of one (1) hour. The Oil and Gas Inspector shall be notified forty-eight (48) hours in advance of such test and may supervise same. Test results shall be filed with the City upon completion.
- (c) Domestic and public water supply wells located within a radius of one-quarter (¼) mile of any enhanced recovery or disposal well shall be tested prior to beginning injection or disposal and thereafter annually for the presence of deleterious substances. Such testing is the responsibility of the permittee and, at the permittee's expense, to be conducted by a person approved by the Oil and Gas Inspector. Such Oil and Gas Inspector shall be notified forty-eight (48) hours in advance of such testing and may be present therefor. Test results shall be filed



with the City upon completion.

(Ord. No. 1515-03, City of Tulsa, Oklahoma)

### **Sec. 13-1515. Lease roads.**

Lease roads shall be maintained in such a manner as to safely allow for ingress and egress of City or state personnel traveling in a common passenger motor vehicle. A duplicate set of keys to the lock of the fence of a lease road shall be filed with the Oil and Gas Inspector.

(Ord. No. 1515-03)

### **Sec. 13-1516. Approaches.**

- (a) An estimate of the cost of the materials of the work to be done on the temporary driveway approach shall be submitted to the Oil and Gas Inspector.
- (b) The maximum drive elevation across a ditch shall be at surface. Improper culvert, drainage ditch, or drive installation and/or maintenance may be corrected by the City, if deemed necessary, at the expense of the lease owner.
- (c) Culverts shall be laid in the bottom of the ditch at the established grade and have a minimum cover (clay to rock) of six (6) inches.
- (d) The minimum width for an oil or gas lease road approach shall be fifty (50) feet at the throat, with a fifteen-foot radius on each side or as directed by the City Traffic Engineer, except that State requirements shall apply to all approaches on State highways.
- (e) If the well is a producer, the approach will be made like the surface of the abutting street within one (1) year after the date the drilling permit was issued. If the street is black top or concrete, a permanent approach permit will be required and the approach shall comply with the officially adopted specifications of the City.

(Ord. No. 1515-03, City of Tulsa, Oklahoma)

### **Sec. 13-1517. Determination of routes to well sites.**

- (a) At least thirty (30) days prior to the actual commencement of any operations at the well site, the permittee shall notify the Oil and Gas Inspector in writing of the proposed date for commencement of such operations. Such notification shall also contain the following information:
  - (1) The permittee shall identify the maximum length, width and weight of any motor vehicles and the maximum weight of the load to be carried by any motor vehicles to be used in traveling to and from the well site.
  - (2) The permittee shall submit a complete list of the proposed routes to and from the well site for all motor vehicles to be used in travel to and from the well site. Such list shall identify any and all highways within the limits of the City proposed to be used by such motor vehicles in traveling to and from the well site.

The Oil and Gas Inspector may also require any additional information which he deems necessary to evaluate the proposed routes.

- (b) Upon receipt of the notification required under subsection (a), the Oil and Gas Inspector shall have twenty-five (25) days to review the information submitted by the permittee. In reviewing the proposed routes to the well site, the Oil and Gas Inspector shall consult with the Engineering Department of the City.
- (c) Following review of the information submitted by the permittee, the Oil and Gas Inspector shall prepare a written order which either approves or disapproves the routes to and from the well

site as proposed by said permittee. If the Oil and Gas Inspector disapproves of all or part of the proposed routes, then such inspector shall designate alternate routes which are acceptable. If the permittee disagrees with the routes as designated by the Oil and Gas Inspector, then he shall have such right of appeal as provided for by law.

- (d) During all drilling and production activities for the particular well, all motor vehicles used by any person to travel to and from the well site shall be restricted to the highway approved by the Oil and Gas Inspector as appropriate routes to and from the well site.
- (e) The Oil and Gas Inspector shall have the power and authority to amend the order designating routes to and from the well site upon his own initiative or upon application by the permittee.

*(Ord. No. 1989-20)*

*(Consolidated Code of Ordinances of the City of Oklahoma)*

### **Sec. 13-1518. Sign.**

- (a) A sign will be posted at the entrance of the drilling site stating the operator's name and the City permit number before spudding a well.
- (b) Within thirty (30) days after the completion of any producing oil or gas well, a sign shall be posted and maintained at the location, showing the operator of the well, name of firm, number of the well, legal description of the well, and the identifying number of the permit issued by the City. The sign shall be no smaller than two (2) feet by two (2) feet and shall be no larger than three (3) feet by three (3) feet.

*(Ord. No. 0-528200-001 No. 06-207-21)*

*(Consolidated Code of Ordinances of the City of Oklahoma)*

### **Sec. 13-1519. Plugging of wells.**

- (a) The owner and operator of any oil, gas, disposal, injection or other service well, or any seismic core or other exploratory hole, whether cased or uncased, shall be jointly and severally liable and responsible for the plugging thereof in accordance with the rules and regulations of the Corporation Commission of the State of Oklahoma.
- (b) A copy of "Intention to Plug" for each well shall be filed with the Oil and Gas Inspector (Form 1001) at least forty-eight (48) hours prior to the commencement of plugging operations. The plugging operator shall notify the Oil and Gas Inspector of the exact time or times during which all plugging operations will take place, to enable the Oil and Gas Inspector to be present if he so chooses. The Oil and Gas Inspector may waive or reduce the forty-eight (48) hours' notice requirements whenever a qualified representative of the Conservation Division of the Corporation Commission of the State of Oklahoma is available to supervise the plugging operation.
- (c) A copy of the plugging record (Form 1003) will be sent to the Oil and Gas Inspector no later than thirty (30) days after a well has been plugged.

*(Ord. No. 0-528200-001 No. 0-1087-21)*

### **Sec. 13-1520. Completion.**

- (a) A copy of the completion report (Form 1002A) will be filed with the Oil and Gas Inspector within thirty (30) days after the well is completed.
- (b) The operator will call the Oil and Gas Inspector for a final inspection of the drilling site after completion of the well and after all reserve pits have been filled and leveled and the well is ready for production.

*(Consolidated Code of Ordinances of the City of Oklahoma)*

### **Sec. 13-1521. Motive power.**

Motive power for all well-pumping equipment shall be electricity; provided, however, that in respect to wells in operation with nonelectric pumping equipment and which do not have the capability for electric power, the Oil and Gas Inspector shall have the authority to waive the requirements of this section if he determines in a particular case that electric pumping equipment is not necessary to protect the public health, safety or welfare.

### **Sec. 13-1522. Oil and Gas Inspector.**

- (a) The City Manager shall employ a qualified person, persons, firm or corporation as an Oil and Gas Inspector, whose duty it shall be to enforce the applicable provisions of this chapter.
- (b) The Oil and Gas Inspector shall have the authority to issue such orders or directives as are required to carry out the intent and purpose of this chapter and its particular provisions. Failure to abide by any such order or directive shall be a violation of this chapter.
- (c) The Oil and Gas Inspector shall have the authority to go upon and inspect any premises covered by the terms of this chapter to ascertain whether [the applicable provisions of] this chapter and the applicable laws, rules, regulations, standards or directives of the state are being complied with. Failure to permit access to the Oil and Gas Inspector shall be deemed a violation of this chapter.
- (d) The Oil and Gas Inspector shall have the authority to request and receive any records, specified in this article, relating to the status or condition of any well or project or the appurtenances thereof within the City. Failure to provide any such requested material shall be deemed a violation of this chapter.

### **Sec. 13-1523. Penalties.**

- (a) Failure to comply with any of the terms and conditions of this article may result in the revocation of the permit issued hereunder and further may result in the forfeiture of any and all amounts deposited with the city in order to repair any damages to public property which may have resulted from the failure to comply with this article.
- (b) Any persons, company or corporation violating any of the provisions of this article, or causing or permitting the same to be done, may be deemed guilty of a misdemeanor and, upon conviction thereof, may be punished by a fine of not less than fifty dollars (\$50.00) nor more than two hundred dollars (\$200.00) per day. Each day of violation shall be deemed a separate offense under this article.

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FOOTNOTE(S):

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