

WATER WELL RECORD

Form WWC-5

Division of Water Resources App. No.

Well ID

MW5

Original Record Correction Change in Well Use

1 LOCATION OF WATER WELL: County Lyon Fraction SW 1/4 NW 1/4 NE 1/4 SE 1/4 Section Number 10 Township Number T 19 S Range Number R 11 E W

2 WELL OWNER: Last Name: Shepard First: Jim Street or Rural Address where well is located (if unknown, distance and direction from nearest town or intersection): ~25' S of 1102 Commercial, Emporia, KS

3 LOCATE WELL WITH "X" IN SECTION BOX: [Section box diagram with X in the center]

4 DEPTH OF COMPLETED WELL: 45 ft Depth(s) Groundwater Encountered: 1) 45 ft 2) ft 3) ft, or 4) Dry Well WELL'S STATIC WATER LEVEL: 35.7 ft

5 Latitude: 38.41103 (decimal degrees) Longitude: 96.17980 (decimal degrees) Horizontal Datum: WGS 84 NAD 83 NAD 27 Source for Latitude/Longitude: GPS (unit make/model: ) (WAAS enabled? Yes No) Land Survey Topographic Map Online Mapper

7 WELL WATER TO BE USED AS: 1 Domestic: Household Lawn & Garden Livestock Irrigation Feedlot Industrial 5 Public Water Supply: well ID 6 Dewatering: how many wells? 7 Aquifer Recharge: well ID 8 Monitoring: well ID MW5 9 Environmental Remediation: well ID Air Sparge Soil Vapor Extractor Recovery Injection 10 Oil Field Water Supply: lease 11 Test Hole: well ID Cased Uncased Geotechnical 12 Geothermal: How many bores? a) Closed Loop Horizontal Vertical b) Open Loop Surface Discharge Inj. of Water Other (specify):

Was a chemical/bacteriological sample submitted to KDHE? Yes No If yes, date sample was submitted: Water well disinfected? Yes No

8 TYPE OF CASING USED: Steel PVC Other CASING JOINTS: Glued Clamped Welded Threaded Casing diameter 2 in. to 30 ft, Diameter in. to ft, Diameter in. to ft, Casing height above land surface -0.45 in. Weight lbs./ft. Well thickness or gauge No TYPE OF SCREEN OR PERFORATION MATERIAL: Steel Stainless Steel Fiberglass PVC Brass Galvanized Steel Concrete tile None used (open hole) SCREEN OR PERFORATION OPENINGS ARE: Continuous Slot Mill Slot Gauze Wrapped Torch Cut Drilled Holes Other (Specify) Louvered Shutter Key Punched Wire Wrapped Saw Cut None (Open Hole) SCREEN-PERFORATED INTERVALS: From 30 ft. to 45 ft, From ft. to ft, From ft. to ft, GRAVEL PACK INTERVALS: From 28 ft. to 45 ft, From ft. to ft, From ft. to ft,

9 GROUT MATERIAL: Neat cement Cement grout Bentonite Other Concrete: 0-0.5' Grout intervals: From 0.5 ft. to 28 ft, From ft. to ft, From ft. to ft,

Nearest source of possible contamination: Septic Tank Lateral Lines Pit Privy Livestock Pens Insecticide Storage Sewer Lines Cess Pool Sewage Lagoon Fuel Storage Abandoned Water Well Watertight Sewer Lines Seepage Pit Feedyard Fertilizer Storage Oil Well / Gas Well Other (Specify): Direction from well? N-NW Distance from well? ~70 ft

Table with columns: FROM, TO, LITHOLOGIC LOG, FROM, TO, LITHO. LOG (cont.) or PLUGGING INTERVALS. Rows show depth intervals and lithology: 0-0.4 Concrete, 0.4-17 Silty clay, 17-17.5 Chert gravel, 17.5-19 Silty clay, 19-24 Silty clay w/ chert gravel, 24-38.5 Clayey silt, 38.5-45 Clayey silt w/ chert gravel

Notes: KDHE ID: S&S Oil - Downtown: U3-056-14869 Target of monitoring well is shallow groundwater, <20' of grout was installed at the direction of KDHE.

11 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION: This water well was constructed, reconstructed, or plugged under my jurisdiction and was completed on (mo-day-year) 3/22/17 and this record is true to the best of my knowledge and belief. Kansas Water Well Contractor's License No 757 This Water Well Record was completed on (mo-day-year) 4/11/17 under the business name of Larsen & Associates, Inc. Signature

# DENNIS L HANDKE

1820 NW 59th Terrace  
TOPEKA, KANSAS 66618  
785-286-4047 Home  
785-286-1990 Fax

Jessica Chapman  
Larsen & Associates  
1311 E. 25<sup>th</sup> Street, Suite B  
Lawrence, Kansas, 66046

March 30, 2017

RE: Monitor Well Elevation Survey  
1102 Commercial, Emporia, Kansas

Proj. 17-00M  
S & S Oil - Downtown  
U3-056-14869

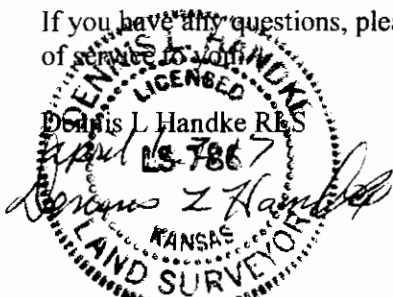
Bench Mark: Chisled Square on South center of concrete pump island West of the building.  
Elev: 1163.12 North 2297 West 2586 (from SE Cor. Sec. 10-19-11E)

MW-1	rim	1162.46	North	2266	NW1/4,NW1/4,NW1/4,SE1/4
	top pipe	1162.19	West	2566	Lat= 38.41122 Long = 96.17985
MW-2	rim	1162.60	North	2306	NW1/4,NW1/4,NW1/4,SE1/4
	top pipe	1162.35	West	2592	Lat= 38.41133 Long = 96.17994
MW-3	rim	1162.92	North	2284	NW1/4,NW1/4,NW1/4,SE1/4
	top pipe	1162.57	West	2470	Lat= 38.41127 Long = 96.17952
MW-4	rim	1163.69	North	2425	NW1/4,NW1/4,NW1/4,SE1/4
	top pipe	1163.41	West	2507	Lat= 38.41165 Long = 96.17964
MW-5	rim	1160.52	North	2199	SW1/4,NW1/4,NW1/4,SE1/4
	top pipe	1160.27	West	2551	Lat= 38.41103 Long = 96.17980
MW-6	rim	1160.53	North	2168	SE1/4,NE1/4,NE1/4,SW1/4
	top pipe	1160.23	West	2700	Lat= 38.41095 Long = 96.18032
MW-7	rim	1161.57	North	2328	NE1/4,NE1/4,NE1/4,SW1/4
	top pipe	1161.26	West	2680	Lat= 38.41139 Long = 96.18025

Lat & Long derived existing Emporia 7.5' quad map. WGS 84.

Elevation established from USGS BM V222 NAVD 83.

If you have any questions, please feel free to call me. Thank you for the opportunity to be of service to you.



RECEIVED

MAY 30 2017

BUREAU OF WATER