

WATER WELL RECORD

Form WWC-5

Division of Water
Resources App. No.

Well ID

MW10

☒ Original Record ☐ Correction ☐ Change in Well Ust

1 LOCATION OF WATER WELL: County Crawford		Fraction NW ¼ SW ¼ SW ¼ SW ¼		Section Number 5	Township Number T 29 S	Range Number R 25 <input checked="" type="checkbox"/> E <input type="checkbox"/> W
2 WELL OWNER: Last Name: First: Business: Arma Express (Hale Petroleum Co) Address: 306 S Crawford City Frontenac State: KS ZIP: 66763			Street or Rural Address where well is located (if unknown, distance and direction from nearest town or intersection): If at owner's address, check here: <input type="checkbox"/> ~20' N of 101 E Washington St., Arma, KS			
3 LOCATE WELL WITH "X" IN SECTION BOX: <div style="text-align: center;">N NW NE W E SW SE S x</div> ----- 1 mile -----		4 DEPTH OF COMPLETED WELL: 11 ft Depth(s) Groundwater Encountered: 1) _____ ft 2) _____ ft 3) _____ ft, or 4) <input type="checkbox"/> Dry Well WELL'S STATIC WATER LEVEL: 1.9 ft. <input checked="" type="checkbox"/> below land surface, measured on (mo-day-yr) 8/26/2019 <input type="checkbox"/> above land surface, measured on (mo-day-yr) _____ Pump test data: Well water was _____ ft after _____ hours pumping _____ gpm Water well was _____ ft after _____ hours pumping _____ gpm Estimated Yield: _____ gpm Bore Hole Diameter: 7.25 in to _____ ft, and _____ in to _____ ft		5 Latitude: 37.54469 (decimal degrees) Longitude: 94.70484 (decimal degrees) Horizontal Datum: <input checked="" type="checkbox"/> WGS 84 <input type="checkbox"/> NAD 83 <input type="checkbox"/> NAD 27 Source for Latitude/Longitude: <input type="checkbox"/> GPS (unit make/model: _____) (WAAS enabled? <input type="checkbox"/> Yes <input type="checkbox"/> No) <input checked="" type="checkbox"/> Land Survey <input type="checkbox"/> Topographic Map <input type="checkbox"/> Online Mapper		
				6 Elevation: 1009.52 ft <input type="checkbox"/> Ground Level <input checked="" type="checkbox"/> TOC Source: <input checked="" type="checkbox"/> Land Survey <input type="checkbox"/> GPS <input type="checkbox"/> Topographic Map <input type="checkbox"/> Other _____		

7 WELL WATER TO BE USED AS:		
1 Domestic: <input type="checkbox"/> Household <input type="checkbox"/> Lawn & Garden <input type="checkbox"/> Livestock <input type="checkbox"/> Irrigation <input type="checkbox"/> Feedlot <input type="checkbox"/> Industrial	5 <input type="checkbox"/> Public Water Supply: well ID _____ 6 <input type="checkbox"/> Dewatering: how many wells? _____ 7 <input type="checkbox"/> Aquifer Recharge: well ID _____ 8 <input checked="" type="checkbox"/> Monitoring: well ID MW10 9 Environmental Remediation: well ID _____ <input type="checkbox"/> Air Sparge <input type="checkbox"/> Soil Vapor Extractor <input type="checkbox"/> Recovery <input type="checkbox"/> Injection	10 <input type="checkbox"/> Oil Field Water Supply: lease _____ 11 Test Hole: well ID _____ <input type="checkbox"/> Cased <input type="checkbox"/> Uncased <input type="checkbox"/> Geotechnical 12 Geothermal: How many bores? _____ a) Closed Loop <input type="checkbox"/> Horizontal <input type="checkbox"/> Vertical b) Open Loop <input type="checkbox"/> Surface Discharge <input type="checkbox"/> Inj. of Water <input type="checkbox"/> 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: <input type="checkbox"/> Steel <input checked="" type="checkbox"/> PVC <input type="checkbox"/> Other _____		CASING JOINTS: <input type="checkbox"/> Glued <input type="checkbox"/> Clamped <input type="checkbox"/> Welded <input checked="" type="checkbox"/> Threaded	
Casing diameter 2 in. to 3 ft, Diameter _____ in. to _____ ft, Diameter _____ in. to _____ ft,		Casing height above land surface -0.36 in. Weight _____ lbs./ft. Well thickness or gauge No _____	
TYPE OF SCREEN OR PERFORATION MATERIAL: <input type="checkbox"/> Steel <input type="checkbox"/> Stainless Steel <input type="checkbox"/> Fiberglass <input checked="" type="checkbox"/> PVC <input type="checkbox"/> Other (Specify) _____ <input type="checkbox"/> Brass <input type="checkbox"/> Galvanized Steel <input type="checkbox"/> Concrete tile <input type="checkbox"/> None used (open hole)			
SCREEN OR PERFORATION OPENINGS ARE: <input type="checkbox"/> Continuous Slot <input checked="" type="checkbox"/> Mill Slot <input type="checkbox"/> Gauze Wrapped <input type="checkbox"/> Torch Cut <input type="checkbox"/> Drilled Holes <input type="checkbox"/> Other (Specify) _____ <input type="checkbox"/> Louvered Shutter <input type="checkbox"/> Key Punched <input type="checkbox"/> Wire Wrapped <input type="checkbox"/> Saw Cut <input type="checkbox"/> None (Open Hole)			
SCREEN-PERFORATED INTERVALS: From 3 ft. to 11 ft, From _____ ft. to _____ ft, From _____ ft. to _____ ft,			
GRAVEL PACK INTERVALS: From 2 ft. to 11 ft, From _____ ft. to _____ ft, From _____ ft. to _____ ft,			

9 GROUT MATERIAL: <input type="checkbox"/> Neat cement <input type="checkbox"/> Cement grout <input checked="" type="checkbox"/> Bentonite <input checked="" type="checkbox"/> Other Concrete: 0-0.7'	
Grout intervals: From 0.7 ft. to 2 ft, From _____ ft. to _____ ft, From _____ ft. to _____ ft,	

Nearest source of possible contamination:

<input type="checkbox"/> Septic Tank	<input type="checkbox"/> Lateral Lines	<input type="checkbox"/> Pit Privy	<input type="checkbox"/> Livestock Pens	<input type="checkbox"/> Insecticide Storage
<input type="checkbox"/> Sewer Lines	<input type="checkbox"/> Cess Pool	<input type="checkbox"/> Sewage Lagoon	<input checked="" type="checkbox"/> Fuel Storage	<input type="checkbox"/> Abandoned Water Well
<input type="checkbox"/> Watertight Sewer Lines	<input type="checkbox"/> Sepage Pit	<input type="checkbox"/> Feedyard	<input type="checkbox"/> Fertilizer Storage	<input type="checkbox"/> Oil Well / Gas Well
<input type="checkbox"/> Other (Specify) _____				

Direction from well? S Distance from well? ~100 ft

10 FROM	TO	LITHOLOGIC LOG	FROM	TO	LITHO. LOG (cont.) or PLUGGING INTERVALS
0	0.2	Asphalt			
0.2	0.5	Concrete & brick			
0.5	6.5	Silty clay			
6.5	10.75	Shale			
10.75	11	Limestone			
Notes: KDHE ID: Arma Express; U3-019-13581 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-yr) 8/12/19 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-yr) 9/9/19 under the business name of Larsen & Associates, Inc. Signature _____

Mail 1 white copy along with a fee of \$5.00 for each constructed well to: Kansas Department of Health and Environment, Bureau of Water, 1000 SW Jackson St., Suite 420, Topeka, Kansas 66612-1367. Mail one to Water Well Owner and retain one for your records. Telephone 785-296-5524.

Visit us at <http://www.kdheks.gov/waterwell/index.html>

KSA 82a-1212

Revised 7/10/2015

DENNIS L HANDKE

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

Jess Chapman
Larsen & Associates
1311 E. 25th Street, Suite B
Lawrence, Kansas, 66046

August 27, 2019

RE: Monitor Well Elevation Survey
102 E. Washington St., Arma, Kansas

Proj. 19-00CC
Arma Express
U3-019-13581

Bench Mark: Square cut on SW corner of concrete school speed zone light base at SW Corner of property.
Elev: 1010.33 North 539.46 West 5250.32 (from SE Cor. Sec. 5-29-25E)

MW-10	rim	1009.88	North	676.08	NW1/4,SW1/4,SW1/4,SW1/4
	top pipe	1009.52	West	5221.00	Lat= 37.54469 Long = 94.70484
MW-11	rim	1009.58	North	625.80	NE1/4,SE1/4,SE1/4,SE1/4 (Sec. 6-29-25E)
	top pipe	1009.33	West	5306.54	Lat= 37.54454 Long = 94.70513

Lat & Long derived from Arma 7.5 quad map. WGS84.

Elevation established from existing project.

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

August 27, 2019
Dennis L Handke RLS

Dennis L Handke
Dennis L Handke
LAND SURVEYOR

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NOTE: Figures exhibited within this report are only to be used within the context of this report. Placement of property lines, wells, structures, and road is based on the available information from county appraiser maps, surveys, site visits, and/or previous vendor reports and should be considered approximate.

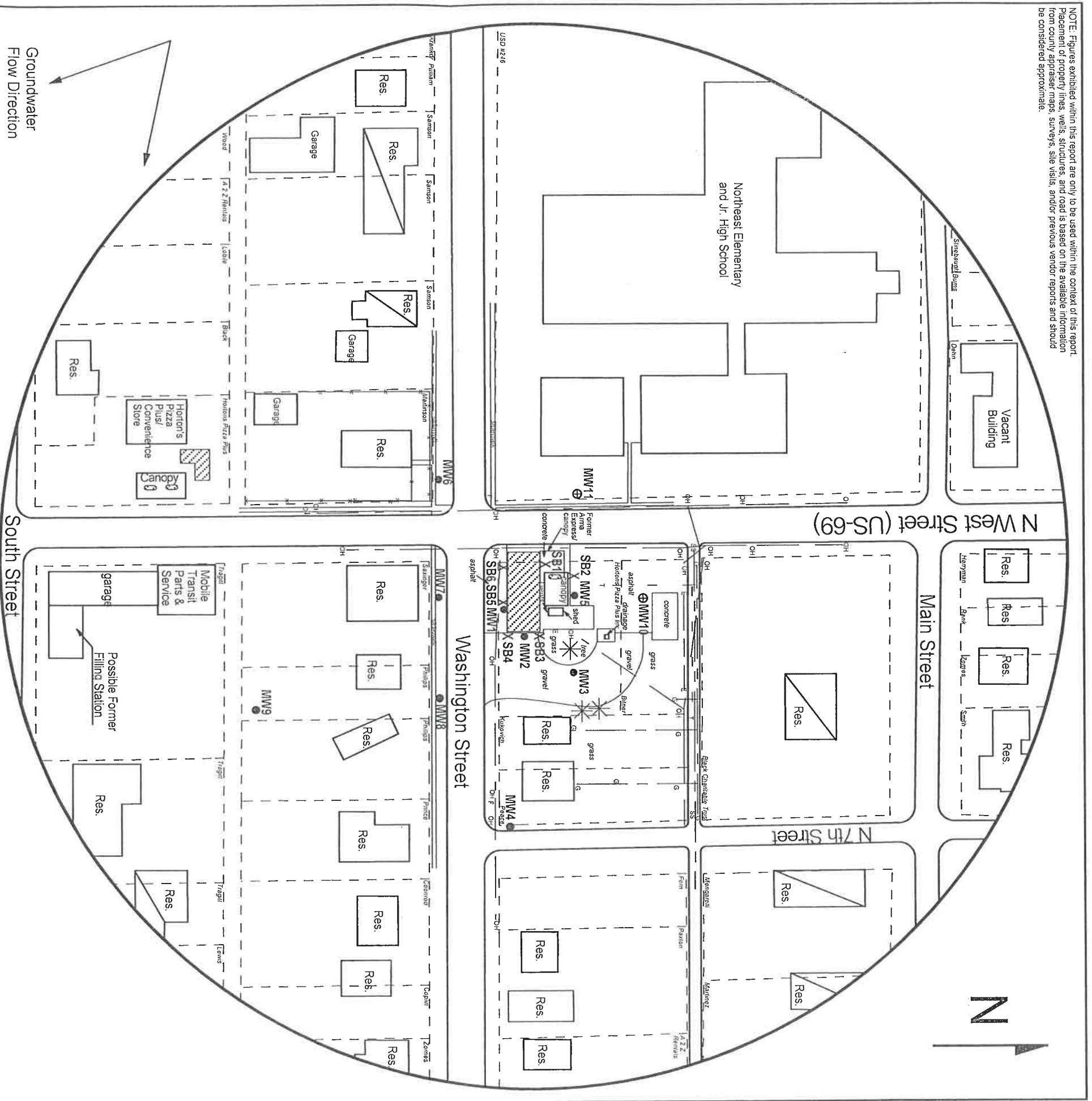



FIGURE 2.2 - 500 FT RADIUS AREA BASE MAP



Larsen
& ASSOCIATES, INC.

1311 E 25th St., Suite B
Lawrence, KS 66046

(785) 841-8707 office
(785) 865-4282 fax

PROJECT:
Arma Express
101 E. Washington
Arma, KS
KDHE ID: U3-019-13581
Date: 8/26/19

LEGEND

- Approximate Location of Active UST Basin and Pump Islands
- Building with Basement
- Approximate Location of Property Line
- Monitoring Well
- Monitoring Well (Installed 8/12/19)
- Soil Boring (Drilled 1/23/19)
- Fire Hydrant
- Electric Lines (1.5 - 3 ft BGS)
- Gas Lines (1.5 - 3 ft BGS)
- Overhead Lines (25 - 40 ft high)
- Sanitary Sewer (2 - 6 ft BGS)
- Telephone Lines (2 - 6 ft BGS)

NOTE: Location of product lines is unknown.
NOTE: Utility depths, heights and locations are approximate.

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