

STATEMAP
Wedron-BG

Bedrock Geology of Wedron Quadrangle

LaSalle County, Illinois

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Introduction

The Wedron 7.5' Quadrangle is located just north of Ottawa, Illinois. It is dissected by the Fox River on the eastern border and egresses at southeastern corner of the quadrangle. Early in the 1900's silica sand was quarried along the Fox and Illinois Rivers and is still being extracted. The St. Peter Sandstone (Ordovician) outcrops along the southern part of the Fox River in the southeastern part of the quadrangle as well as along the eastern border on the Fox River. There are only two bedrock formations that occur in the study area, the St. Peter Sandstone, which is unconformably overlain by a veneer of Carbondale Formation (Pennsylvanian). The Carbondale Formation occurs along the southern third of the quadrangle whereas, the St. Peter occurs in the northern two-thirds of the quadrangle. The bedrock topography as seen from outcrops and water wells is an undulating plain that is tilted to the east that has been carved in places with local Pre-Pleistocene paleovalleys. Along the confluences of Indian Creek and Buck Creek flowing into the Fox River, these streams as well as the Fox are deeply entrenched into the aforementioned bedrock formations. There are four Pennsylvanian outliers in the central and northern parts of the quadrangle two are newly found with this mapping.

A pre-glacial river named the Ticona River (Figure 1) has tributaries that occur in the study area (Willman 1940, Willman and Payne 1942). Parts of these tributaries were infilled later with cold water, Pleistocene lake deposits called the Peddicord Member of the Equality Formation. The bedrock formations were mapped as well as the modern Cahokia Formation (alluvium). The glacial drift was not mapped and is only depicted on the stratigraphic column where the Pleistocene infills the paleovalleys. The drainages of the Ticona River flowed east off the bedrock high on the west side of the quadrangle.

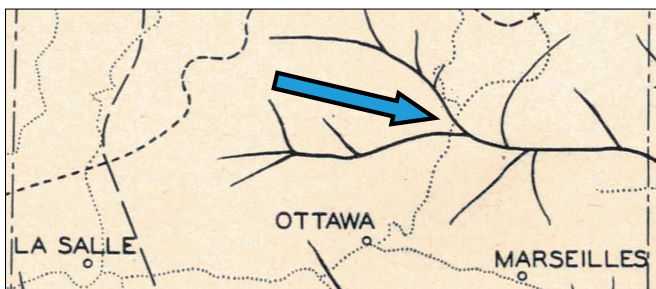


Figure 1 Showing the Wedron Branch of the Ticona River after Willman and Payne, 1942.

Mapping Methods

All major streams and rivers were traversed as well as smaller tributaries in the quadrangle. Water wells in the ISGS repository (ILWATER) were plat book verified and used to develop a bedrock topographic surface (see Appendix 1). This surface along with driller log information was

used to generate contacts between the St. Peter Sandstone and Carbondale Formation. Outcrops and contacts between Ordovician and Pennsylvanian observed in streams provided control over placement of those contacts as well as the water wells. Photos were taken at the silica sand pits. Early field notes and measures sections of H. B. Willman and J. Norman Payne were also used in this study.

Stratigraphy

Ordovician

The St Peter Formation takes its name from the St. Peter River in Minnesota where it was named by Owen (1847) although now it is called the Minnesota River (Willman, et al., 1975). In the Wedron Quadrangle, the formation is generally about 140 to 160 feet thick. However, this varies greatly as pre-glacial streams have locally cut into parts of this formation. The St. Peter Sandstone is a white, fine to medium grained, well-sorted, well-rounded and frosted quartz arenite that is friable in places and well cemented in others. The basal contact of the St. Peter with the Shakopee Dolomite is unconformable as well as the upper contact with the Carbondale Formation or glacial sediments. In the eastern part of the quadrangle, the St. Peter Sandstone forms scenic bluffs on the Fox River at the confluence of Indian Creek and the Fox River at Ayers Landing (Photo 1).

This sandstone displays an extreme level of textural and mineralogic maturity resulting from polycyclic origins from older Cambrian and Precambrian sandstones. In the old Wedron Silica Company, cross bedding about three feet thick occur in the middle portion of the formation. Two types of cross bedding are known, fluvial is the most common but also eolian cross beds have been documented (Lamar, 1927). Thin sheets of marcasite also occur in the St. Peter Sandstone in the Wedron Quadrangle. Pyrite crusts also seen at the top of the St. Peter in an east facing ravine to the Fox River in the southeastern-most part of the quadrangle. Pyrite occurs in cracks and at the contact with Pennsylvanian strata. No fossils were observed in the St. Peter. Because of its purity, this sandstone has been mined for making glass and numerous other uses. It is a local aquifer in most of the study area. This formation is diachronous, in northern Illinois it is early Turinian Stage whereas, in southern Illinois it is late Whiterockian Stage. Stratigraphically, the St. Peter straddles the lower-most Upper Ordovician and upper-most Middle Ordovician Series.

Most of the outcrops of St. Peter occur along the Fox around Dayton, Illinois in sections 32 and 29, T 34N, R 4E and near Wedron, Illinois on the Fox and confluences of Indian Creek in sections 4, 3, 9 and 10 of T 34N, R 4E. Buck Creek also has exposures of St. Peter Sandstone where near the Fox River.

Pennsylvanian

The Carbondale Formation in the study area consists of siltstones, gray shales, and lesser amounts of limestone, black shale and coal. The southern part of the quadrangle has the



Photo 1 Showing the St. Peter Ss on the Fox River at Ayers Landing.

northern-most inlier of Pennsylvanian with new modifications of the subcrop and four outliers with one in sections 5 and 8 of T34N, R4E, being a new outlier and in section 33, and 34 of T34N, R3E also being a new outlier. Coal occurs in most of the water wells that penetrate Pennsylvanian.

The part of the Pennsylvanian section that crops out in the southern part of the quadrangle is the Colchester Coal Bed of the Carbondale Formation which occurs 5 feet above the St. Peter Sandstone. This coal is 1.2 feet thick and occurs at 500 foot elevation above sea level, in an east flowing stream to the Fox River, northwestern quarter of section 32, T34N, R4E. Higher in the section a thin (1 to 2 foot thick) nodular limestone (Figure 2, Photo 2) occurs in a west flowing ravine to the Fox River in the same Section. This limestone occurs about 53 feet above the Colchester Coal. The limestone is light gray, argillaceous mudstone to wackestone with darker gray lime-mudstone at the base. The basal part of the limestone contains 1/2 inch in diameter, dark phosphatic nodules (Photo 3). A thin limestone conglomeratic facies is also associated with this limestone. Fossils are rare but some brachiopods, ramose bryozoans and crinoid debris are common. Cone-in-cone structure seen associated with the limestone and limestone conglomerate. This conglomerate was called the Covel conglomerate by Willman and Payne (1942), it was placed in the upper part of the Sumnum cyclothem, which

in current stratigraphic terminology equates to the Houchin Creek Coal and Excello interval.

Conodonts were found to be numerous and diverse in this limestone. All of them are quite small and many are juveniles. They are dominated by several species of the common genus *Idiognathodus* and include *Idioproniodus*, *Adetognathus* and *Neognathodus*. Although rare, the presence of the ribbed species of the genus *Gondolella* is confined to the Excello Shale; the species *G. wardlawi* is only known from the Excello Shale in the Illinois Basin. This limestone bed is laterally equivalent to the Excello Shale. *Adetognathus* is a nearshore genus; as this is near the edge of the Pennsylvanian deposition and most likely near the paleo-shoreline. The small size of the conodonts in the limestone suggests a less than favorable environment where none of the conodonts found grew to their normal larger size. Above the limestone is a 3 foot section of gray claystone that has a smutty coal. Above this is a thin lenticular dark gray, argillaceous limestone that displays conchoidal fracture. This thin limestone contains plant debris and has cone-in-cone structures. The conchoidal nature and cone-in-cone structure suggests concretionary growth during diagenesis. The limestone is overlain by a fissile, black shale that may be the Turner Mine Shale (Photo 4). The cyclothem sequences are much condensed at the feather edge of Pennsylvanian deposition in the Wedron Quadrangle.

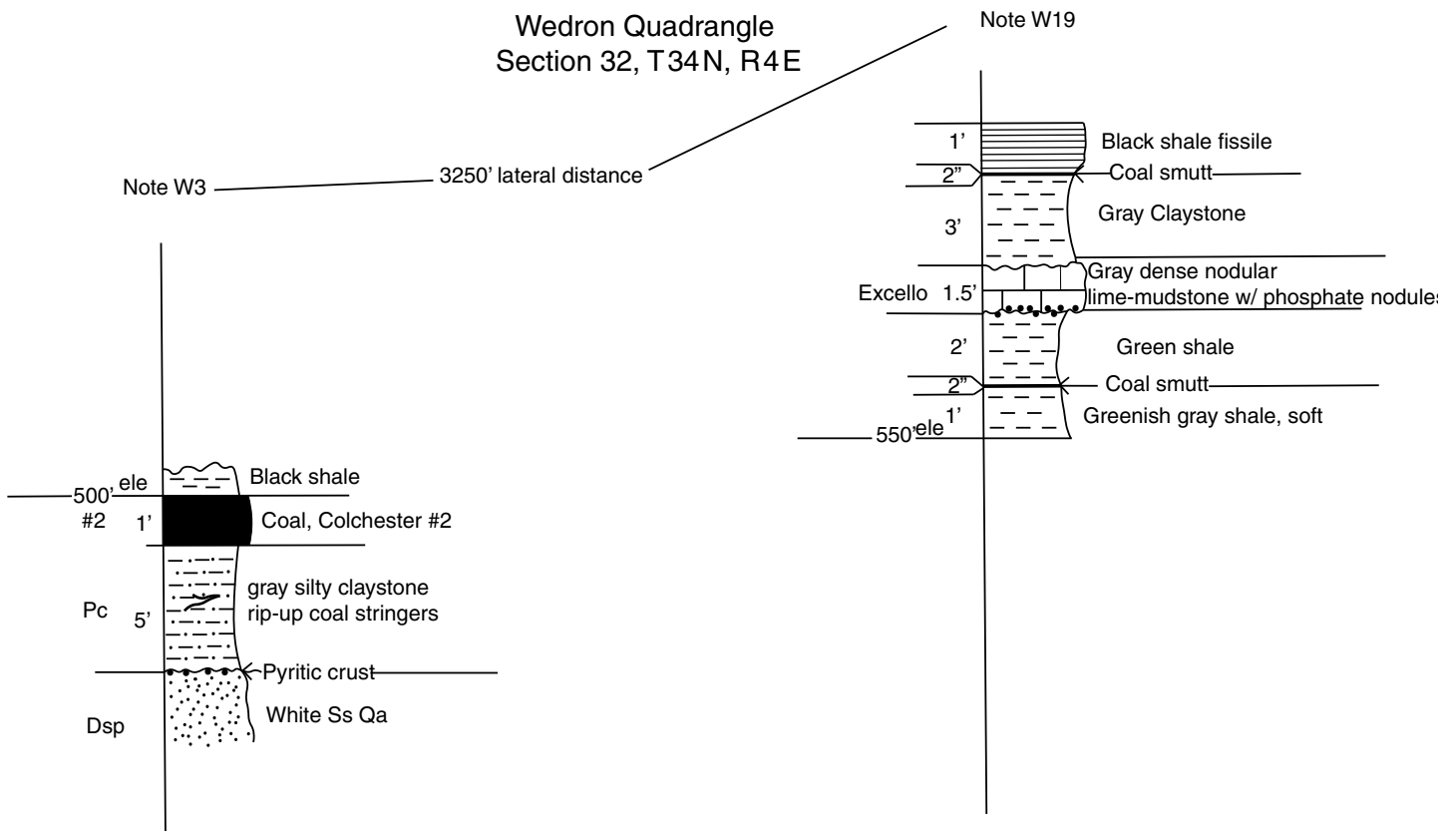


Figure 2 Carbondale formation in the southern part of the Wedron Quadrangle along I80.



Photo 2 Nodular limestone equivalent to the Excello Shale.



Photo 3 Phosphate nodules at the base of the limestone.



Photo 4 Hammer resting on the gray limestone that occurs below the fissile black shale.

Pre-Glacial Ticona River

An important factor in the area of silica mining are the tributaries of the preglacial Ticona River named here the Wedron Branch. The reason for mapping the paleovalleys are two-fold: 1, the paleovalleys cut out or eroded the St. Peter Sandstone (removal of product) and 2, the paleovalleys are full of glacial drift which has to be removed.

The paleo-channels in the Wedron Quadrangle are infilled with the Peddicord tongue of the Equality Formation, which occurs at the base of the section in the preglacial valley (Photo to 5). Overlying the Peddicord is the Tiskilwa Till Member of the Wedron Formation. The Pleistocene units overlie bedrock that was eroded earlier by eastward draining streams. The Wedron Branch (see Figure 1) in the study area eroded the St. Peter Sandstone between 30 to 60 feet. This drainage turns south, east of the Wedron Quadrangle between Marseilles and Morris, Illinois where it joins the main trunk of the Ticona River, which drained back to the west and crosses the La Salle Anticlinorium, Figure 3 (Willman and Payne, 1942).

The drainage to the east in the Wedron Quadrangle may be explained by the presence of the LaSalle Anticlinorium, where the Ordovician bedrock dips gently east from the axis of the LaSalle structure. The main trunk however, crosses the axis of the LaSalle to the southwest of the study area (see Figure 3). This may be due to the Ancona Anticline that plunges northwestward near where the Ticona River crosses the LaSalle structure. The exact position of the Wedron Branch, east of the modern Fox River is uncertain as a bedrock high is in this area as shown by sparse water wells. However, there is not enough drill whole data to show the exact course which may be in a paleo-canyon in section 15, T34N, R4E. Another indication of the Wedron Branch in section 15 is outcrops of St. Peter are gone at Sulfur Springs but occur north and south on the east bank of the Fox River. The authors think that the Wedron branch was diverted north as depicted on the geologic map along the current course of the Fox River then veered east as shown by Willman & Payne (1942).



Photo 5 Showing the preglacial valley fill of the Ticona River in the Wedron Silica Pit, photo looking north. Location is field note W17 which is shown on the quadrangle map accompanying this report.

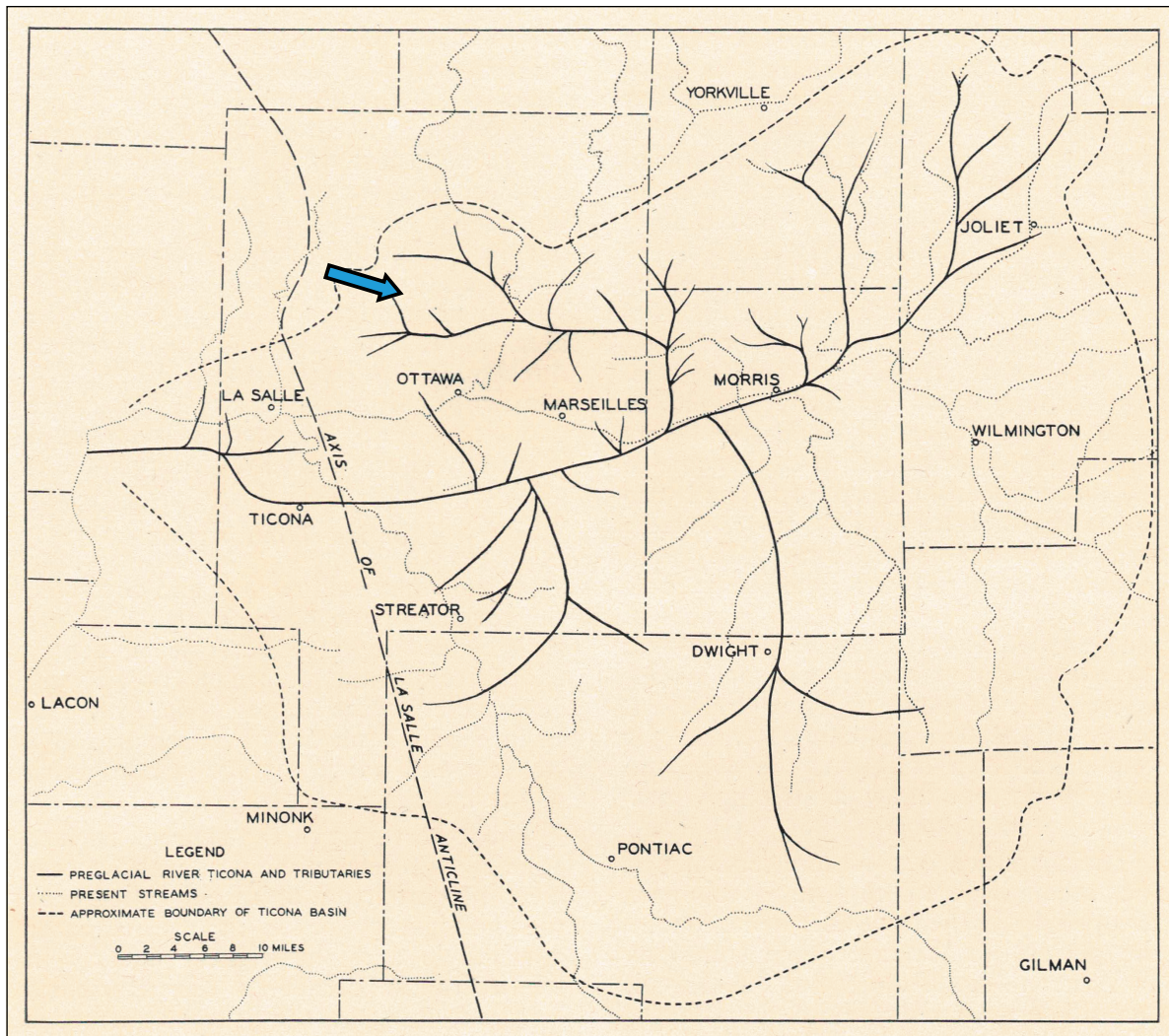


Figure 3 Taken from Willman & Payne, (1942) blue arrow showing gradient direction off of the La Salle Anticline.

Structural Geology

No faults are known in the Wedron Quadrangle but the La Salle Anticlinorium does affect the preglacial and pre-Pennsylvanian units. Mainly the St. Peter Sandstone dips gently undulating to the east as a part of the east limb of the anticlinorium. Locally, a small antiform called the Ottawa anticline and paralleled Ransom Syncline (Willman and Payne, 1942) are responsible for the drainages carved into the St. Peter Sandstone and overlying Carbondale Formation. The outliers of the Carbondale Formation appear to act as interfluvies as the drainages of the Wedron Branch of the Ticona River are directed east from the quadrangle.

Economic Geology

Silica

The most significant commodity in the study area is silica sand. The St. Peter has been mined in the Wedron, Illinois area since the early 1900's and perhaps earlier as the use of high grade, pure, silica sand for molding bottles and window

glass was known in the 1800's. The location of the St. Peter Sandstone on the Fox and Illinois Rivers and the pre-railroad days of the I & M canal, afforded accessible water transportation from the mid-to late 1800's.

There are myriad uses of silica sand as abrasives, desiccants, extenders, molding, flux and most importantly glass manufacture. However, one of the most recent uses of this sandstone is the petroleum industries consumption of this product as a proppant sand for hydraulic fracking to enhance oil production.

Coal

The main coal in the area is the Colchester Coal and was only mined for local use. No large coal mine workings occur in the Wedron Quadrangle.

Gravel

Two gravel pits located in the northeast corner of Section 21 and southeast corner of section 16, T34N, R4E, has produced gravel from the Pleistocene glacial sediments.

Groundwater

Groundwater is an important resource used throughout the Wedron Quadrangle. Quaternary and Pennsylvanian Systems semiconfine the region's main aquifers. The low permeability of Wedron Group diamictos (Quaternary) and the Carbon-dale shales (Pennsylvanian) help prevent contamination, but also limit recharge, to the aquifers below.

Where these confining units are eroded or not present, the underlying Ancell Aquifer (or Ancell Group) is exposed, such as along banks of the Fox River in the quadrangles southeast. This consolidated aquifer can reach depths greater than 300 feet below the land surface, and is mainly comprised of the high permeability St. Peter Sandstone's Tonti and Starved Rock Members. This groundwater reservoir is regionally sourced for potable use by several residential and municipal wells, including the City of Ottawa's Class-I supply along the quadrangles southern border. This aquifer system is also used for agricultural irrigation and industrial-ly, such as with hydraulic mining of silica from the St. Peter Sandstone near the Town of Wedron.

The Ancell Aquifer uncomfortably covers the Prairie Du Chien Group, Shakopee Formation. The Shakopee generally has low permeability and semiconfines deeper aquifers (un-mapped), but it can also express localized fractures, chemical weathering, and moldic porosity, that can make it a useful groundwater supply (Kay and Bailey, 2016).

References

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Appendix

Water wells used for control of the bedrock surface and mapping subcrops below the glacial sediments.

API	Owner	Type	Total Depth
120990002100	Kuhn, C. F.	WATER	139
120990002200	Barrett, Ed. B.	WATER	252
120990011700	Ottawa Air Port	WATER	175
120990016000	Gleim, Edith H.	WATER	125
120990016300	Fox, Vincent E.	WATER	191
120990016600	Highland, Tom	WATER	122
120990016700	Bradford, Wm. A.	WATER	145
120990016800	McGrogan, H. M.	WATER	140
120990017900	Rollin, W. H.	WATER	141
120990018000	Challey, Sarah	WATER	135
120990025700	Harmon, Chas.	WATER	167
120990026000	Leonard, Don	WATER	130
120990026200	Sensiba, L. S.	WATER	81
120990026300	Bridwell, Clifton J.	WATER	170
120990027200	Volkenant, Adam	WATER	101
120990027900	Hupp, Leo	WATER	142
120990046600	Shaver, Jay	WATER	223
120990070800	Heneke, Mamie	WATER	155
120990070900	Indian Creek Tavern	WATER	85
120990071300	McCormick, Raymond	WATER	106
120990071400	Hanley, D. T.	WATER	137
120990072100	Wagner, Emma K.	WATER	140
120990072200	McDonnell, Bert E.	WATER	125
120990072300	McGinnis, John	WATER	63
120990072600	Gurney, George	WATER	157
120990072700	Ottawa Implements Co.	WATER	180
120990073000	Bozeman, Wm.	WATER	130
120990073200	Warren, Russell	WATER	135
120990073500	Weber, E. E.	WATER	175
120990073600	Wedron Silica Co.	WATER	242

120990073800	Johnson, Carl	WATER	142
120990074000	Ferrari, Basil	WATER	144
120990074100	Eustis, Laura	WATER	159
120990074300	Swift, Susan G.	WATER	145
120990074400	Schmidt, R. A.	WATER	135
120990074500	Funk, Frank F.	WATER	135
120990074600	Thorson, Maynard	WATER	143
120990075800	Grove, Louise	WATER	161
120990076000	Canfield Farm	WATER	200
120990078300	Oaklane Development Corp.	WATER	504
120990083000	Pool, Ernest H.	WATER	165
120990083200	Ostrem, Earling	WATER	170
120990083400	Scheppler, Dr. F. E.	WATER	150
120990083500	Windus, A.	WATER	190
120990084300	Fox River Tavern	WATER	55
120990084800	Brown, Clarence	WATER	130
120990085000	Dannenberg, Emmett	WATER	160
120990085100	Eike, S.	WATER	149
120990085200	Arntzen, R. H.	WATER	101
120990085300	Hextell, M.	WATER	165
120990085400	Kreiguer, Fred G.	WATER	160
120990085600	Courtright Farm	WATER	150
120990085800	Ashley, E. H.	WATER	168
120990088700	Hoxsey, Stanley	WATER	126
120990104500	Marco August	WATER	146
120990104600	Marshall, Edward	WATER	135
120990104700	Wolfe, Elmer	WATER	160
120990104800	Gaul, Dr. E. C.	WATER	130
120990105400	Hoxey, Warren	WATER	125
120990105500	Kennedy, John	WATER	130
120990105800	Claude, Henry	WATER	72
120990105900	Pitstick Dairy Farm	WATER	220
120990106000	Grove, Louise	WATER	152
120990106100	Dollins, Alfred Estate	WATER	150
120990106200	Irwin	WATER	85

120990106500	Dayton Township Dairy	WATER	240
120990106600	Cook, Harry Jr.	WATER	130
120990106700	Bowden, Mildred	WATER	125
120990106800	Thayer, Mrs.	WATER	180
120990112200	Johnson, Carl	WATER	115
120990112500	Long, Nina	WATER	210
120990112600	Nelson, Edna H.	WATER	270
120990112900	King Wayne	WATER	220
120990113100	Trumbo, Mrs. Franklin	WATER	207
120990113300	Ward, Frank	WATER	78
120990113400	Dummett, John A.	WATER	465
120990113600	Neurohr, Martin	WATER	175
120990113700	Wedron Housing Project	WATER	151
120990113800	Linn, Elmer	WATER	120
120990113900	Woodlock, Ella	WATER	140
120990114200	Lambourn, John	WATER	110
120990114400	Goniham, Leon	WATER	157
120990114500	Gleim, George	WATER	166
120990114600	Macgrogan, H. M.	WATER	140
120990116000	Daughterity, Russell	WATER	155
120990116100	Pool, Clarence	WATER	135
120990116400	Frubairn, Wesley	WATER	140
120990123000	Garzanelli, Mario	WATER	185
120990123100	Ottawa Water Co.	WATER	185
120990123300	Pryde, John	WATER	180
120990123400	Moorshead, R. T.	WATER	185
120990123700	Tipton Sales & Service	WATER	180
120990123800	Scott, Ellen Tavern	WATER	143
120990123900	Vatland, Ted	WATER	85
120990124100	Simpson, Robert	WATER	91
120990124300	Brown, Maude	WATER	105

120990124600	Spence, William	WATER	110
120990124700	Parr, Mr.	WATER	115
120990125100	Hughes, Jason	WATER	115
120990125200	Matthews, Homer Sr.	WATER	140
120990125600	Green's Dairy Well	WATER	160
120990125800	Fraine, Emma C.	WATER	110
120990126200	Kennedy, Wilbert	WATER	140
120990126300	Mid-Town Water Well	WATER	125
120990126400	Elwell, Myra H.	WATER	200
120990126800	Charlier, Emil H.	WATER	90
120990128100	Fritz, John	WATER	50
120990128200	Doolan, Mr.	WATER	65
120990128400	Fox River Tavern	WATER	55
120990142100	St Joseph Health Resort	WATER	338
120990169300	Wedron Silica Co.	WATER	261
120990193400	Farm Bureau-LaSalle County	WATER	470
120990195500	Scerini, Wilbur	WATER	105
120990195700	Sun Oil Company	WATER	200
120990197400	Burmac Corporation	WATER	491
120990197600	Melton, Albert	WATER	200
120990202100	Nazarene Church	WATER	450
120990203400	Corcoran, Tom	WATER	145
120990203500	Shambaugh, G. E.	WATER	202
120990205700	Kern, John	WATER	162
120990213100	Kain, Harold Jr. (Sugar Shack)	WATER	493
120990213200	Tractor Supply Company	WATER	205
120990218200	Skelly Oil Company	WATER	510
120990218900	Ozman, Richard	WATER	142

120990221900	Tripini, Peter	WATER	148
120990222300	Hoxsey, Stanley	WATER	153
120990223700	Belen Manufacturing Co.	WATER	200
120990229800	Murry, Pearce	WATER	180
120990235300	Hurt, Herbert	WATER	147
120990236600	Sigma Press	WATER	235
120990238100	Snook, Walter	WATER	200
120990238200	Hite, Virginia	WATER	120
120990240000	Kueteman, Wm.	WATER	200
120992252700	Owens Corp.	WATER	170
120992255600	Warehouse Markets Inc.	WATER	235
120992255800	Hite, Virginia	WATER	160
120992262100	Sondgeroth, Delbert	WATER	160
120992263200	Tuftie, Gary	WATER	140
120992272100	Edward Hines Lumber Co.	WATER	200
120992275100	Snook, Peter	WATER	180
120992275200	Sibigtroth, Art	WATER	200
120992298800	Jonassen, Michael	WATER	160
120992299100	Boe, Russell	WATER	200
120992299200	McMichael, Wayne	WATER	180
120992300200	Maynard, Robert	WATER	335
120992300400	Funk, Robert	WATER	225
120992300500	DeGrave, Arthur	WATER	100
120992301200	Schultz, Charles	WATER	160
120992301600	Yell, Clifford	WATER	170
120992301700	Cook, Peter	WATER	155
120992301800	Ruiz, Mike	WATER	150
120992301900	Twait, Stan & Associates	WATER	160
120992306200	Derby, Mrs. Ruby	WATER	185
120992306300	Clairmont, Charles	WATER	215
120992306500	Titzel, Arthur	WATER	160
120992306600	Stockley, Mary	WATER	140
120992306700	Dannenberg, Emmiter	WATER	155

120992306800	Temple, Howard	WATER	155
120992307100	Arntzen, Ed	WATER	200
120992307200	Miller, Russell	WATER	200
120992309500	Tirevold, Gary	WATER	150
120992329300	St. Joseph's Church	WATER	200
120992329400	Yuhas, Dorothy I.	WATER	160
120992334300	Schmidt, Richard	WATER	155
120992337000	Kueteman, James	WATER	230
120992338200	Woods, Alma	WATER	126
120992357000	Raibley, Bernard	WATER	190
120992440800	Vignali, Joe Construction	WATER	185
120992440900	Sesto, Jay	WATER	185
120992441000	Thorsen, Ed	WATER	180
120992441100	Vulkson, Nick	WATER	185
120992441200	Lethiot, Jim	WATER	185
120992441300	Pearse, Dave	WATER	245
120992441400	Burruss, Dan	WATER	300
120992441600	Stillwell, Kevin	WATER	140
120992442900	Pierce, Arthur	WATER	161
120992444200	Anderson, Ann Estates	WATER	160
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120992445100	Pitstick, Vincent	WATER	110
120992446600	Edgcomb, Phil	WATER	140
120992454100	McDonnell, Bert	WATER	150
120992454800	Miner, Lacy	WATER	225
120992469100	Totel, Dick	WATER	197
120992469200	Aubry, Dennis	WATER	160
120992469300	A & B Pump Service	WATER	130
120992469400	Johnson, Jeff	WATER	170
120992469500	Moe, Ronald	WATER	160
120992469700	Borough, Ross	WATER	155
120992469900	Johnson, Maurice	WATER	185
120992471600	Duffy, John	WATER	155
120992471700	Popp, Jim	WATER	140

120992477900	A & B Pump Service	WATER	200
120992478600	Bergren, Scott	WATER	110
120992479600	Fairmount Abrasives	WATER	140
120992482100	Scherer, Hubert	WATER	200
120992485700	Krug, Merle	WATER	160
120992485900	Broadus, Kathy	WATER	140
120992486700	Rutten, Kerry	WATER	121
120992496800	Debernardi, Rich	WATER	155
120992497000	Berggren, Lee & Renae	WATER	140
120992498500	McEvoy, Kenneth R. & Jennifer E.	WATER	180
120992499900	Broadus, Larry	WATER	140
120992500100	Greenwell, W.T.	WATER	180
120992500500	Olmstead, Evert	WATER	155
120992502000	Carretto, Pete	WATER	200
120992502200	Wagner, John	WATER	200
120992505000	Pershey, Marcella	WATER	140
120992508500	Phelps, David	WATER	160
120992508600	Thompson, Rob	WATER	240
120992508900	Indian Creek Archery	WATER	140
120992514200	Wallace Township	WATER	155
120992514500	Strelecky, John	WATER	155
120992514800	Dondanville, Lee	WATER	260
120992516600	Terry, Mike	WATER	180
120992516700	Ninkovich, John	WATER	130
120992519400	Goldman, Biff	WATER	160
120992521900	Wallace School Dist. 195	WATER	400
120992522000	Neurohr, Guy	WATER	200
120992532200	Boisso, James	WATER	180
120992532300	Allen, Edward E. Jr.	WATER	460
120992536300	Banushi, Ramgi	WATER	160
120992537300	Ainsley, Peter & Kristien	WATER	120

120992537700	Spross, Harold	WATER	140
120992540400	Condron, Bill	WATER	180
120992540500	Billings, Stephen	WATER	200
120992540800	Brown, Bill	WATER	160
120992542900	Kuteman, Curtis	WATER	140
120992543000	Ellis, Derrick	WATER	180
120992543001	Ellis, Derrick	WATER	400
120992543500	Pagakis, Donald	WATER	140
120992545300	Veith, Bill	WATER	120
120992551400	Krug, Roger	WATER	120
120992551500	McDonnell, John	WATER	120
120992551600	Hall, Doug & Sheila	WATER	160
120992551700	Waygand, Gary	WATER	160
120992551800	Hubbarrt, Edna	WATER	240
120992551900	Pinney, Keith	WATER	200
120992552300	Knauf, James C.	WATER	160
120992552500	Skydive Chicago	WATER	200
120992552600	Kamphuis, Jerry	WATER	160
120992552700	Gage, Tim & Jocelyn	WATER	180
120992554400	Bowers, R. & Grosskiaus	WATER	100
120992554600	Hall, Dave	WATER	140
120992554800	Garrow, Marion	WATER	180
120992554900	Lay, Randy	WATER	140
120992560300	Hansen, Tim	WATER	240
120992554600	Hall, Dave	WATER	140
120992554800	Garrow, Marion	WATER	180
120992554900	Lay, Randy	WATER	140
120992560300	Hansen, Tim	WATER	240
120992561000	Rusnak, Matt	WATER	80
120992561100	Meyer, Paul & Nancy	WATER	240
120992561200	Vogel, Dan	WATER	100
120992562200	Littlebrant, Earl & Brenda	WATER	220
120992565400	Modesitt, Russ	WATER	180

120992565500	Poundstone, Robert	WATER	180
120992565600	Castro, Rick & Donna	WATER	200
120992565700	Hedlin, Dave	WATER	100
120992565800	Neurohr, John (Hans)	WATER	100
120992570700	Villa, Jesus	WATER	200
120992570800	Wedron Silica Sand	WATER	160
120992571900	Battles, Delbert	WATER	140
120992572200	Duvick, Chris	WATER	120
120992576100	Spicer, John	WATER	200
120992576200	Daugherty, Wayne	WATER	220
120992576400	Chapman, Ralph & Nancy	WATER	180
120992576500	Ross, Carey & Barb	WATER	160
120992579900	Gonterman, John & Kelly	WATER	160
120992580000	Duffy, Terrence & Karen	WATER	220
120992582900	Moore, Chris & John	WATER	180
120992585800	Strukel, Jake	WATER	160
120992586100	Van Mill, John	WATER	160
120992586800	Lorenz, Melissa	WATER	100
120992586900	Marshall, John	WATER	180
120992588700	Gioni, Jerry	WATER	200
120992590300	Ottawa Airport	WATER	400
120992592100	Kueteman, Mel	WATER	360
120992592200	Singer, Fred & Shanda	WATER	200
120992592400	Tonielli, Joe & Violet	WATER	140
120992594500	Norman, Randy	WATER	140
120992595600	Crum, Dominick	WATER	150
120992595700	Pinney, Keith	WATER	200
120992597700	Ollom, Tim & Nancy	WATER	180
120992597800	Rolyn Homes	WATER	180
120992598100	Otto, Mike	WATER	120
120992599400	Obos, M.J.	WATER	400
120992599700	Stafford, Doug	WATER	200

120992600100	Arwood, James	WATER	180
120992601000	Brown Bag Video	WATER	460
120992602200	Reynolds, Roy	WATER	100
120992602400	Wylar, Les	WATER	180
120992604400	Butchko, Bruce & Susan	WATER	180
120992604600	Ott, Kevin	WATER	180
120992608600	Thompson, Robert	WATER	120
120992609700	Guzman, Oscar	WATER	110
120992610900	Terpstra, Larry	WATER	180
120992611400	Armstrong, Frank	WATER	160
120992614800	Curry Ice & Coal of Ottawa	WATER	500
120992615100	Lucas, Richard	WATER	180
120992615200	Nelson, Robert	WATER	160
120992615900	Schiltz, David & Sharon	WATER	220
120992620100	Wawerski, George	WATER	200
120992623700	Dwire, Sam	WATER	120
120992623900	Husemann, Shirley	WATER	180
120992624300	Jeffries, Jim	WATER	180
120992625800	Johnson, Stanley	WATER	100
120992626200	Nelson, Donald	WATER	170
120992626400	Marshall Farms	WATER	180
120992628900	Oak Lane Sub-division	WATER	287
120992629200	Blum, Ray	WATER	100
120992630300	Marsh, Rebecca	WATER	180
120992630600	Kleckner, Russell	WATER	160
120992634000	Kountry Aire MHP	WATER	160
120992635000	McMichael, Anabel	WATER	260
120992636800	Nelson's Childrens Trust	WATER	400
120992637600	Wise, Jack	WATER	300
120992638200	Baxter, Jim	WATER	120
120992638500	Thompson, Richard	WATER	460

120992639000	Berggren, Lee & Renae	WATER	160
120992640200	Weber, Matt	WATER	180
120992640300	Hood, John & Cathy	WATER	160
120992640600	Scheffler, Craig	WATER	180
120992641400	Hardee, Dave & Debra	WATER	140
120992641700	Highsmith, Joanne	WATER	140
120992643900	Garbleman, Paul	WATER	200
120992645500	Eslinger, Nate	WATER	140
120992651500	BB's Bar & Grill (Sandbar)	WATER	0
120992653100	Harding Grade School	WATER	0
120992653200	Serena Community School	WATER	0
120992656000	Professional Leasing	WATER	180
120992656100	Megrett, Gary & Deborah	WATER	120
120992657400	Thorpen, Robert	WATER	160
120992658200	Kaforski, John	WATER	140
120992659600	Kay, Greg	WATER	180
120992660600	Leslie, Kevin & Melissa	WATER	280
120992662800	Serena Twp Rd. District	WATER	200
120992663500	Zeeman, Larry	WATER	140
120992663600	Rudolph, Don	WATER	180
120992664000	Balensiefen, Floyd E.	WATER	160
120992664100	Seiborn, Wade	WATER	160
120992664400	Bublitz, Dale	WATER	260
120992673900	Berger, Henry & Jennifer	WATER	140
120992674400	Barbier, Will	WATER	180
120992674600	Frieders, Joe	WATER	160
120992675400	Wiley, H.D.	WATER	140
120992676100	Bute, Dennis & Ali	WATER	160
120992676900	Conrad, Jerry	WATER	180
120992677600	Mustered, Michael S.	WATER	160

120992677700	Wilson, Donald E.	WATER	180
120992678400	Kueteman, Jeff	WATER	360
120992678600	Lubanowski, Chester	WATER	180
120992679100	Dwire, Samuel	WATER	240
120992679200	Conrad, David	WATER	180
120992681000	Pliuksis, Karlis	WATER	100
120992681400	Kohler, Walter & Kathy	WATER	220
120992681900	Duffy, Margaret	WATER	200
120992687200	Kimco Shopping Center	ENG	31
120992691200	Echols, Carrie	WATER	145
120992692100	Shannon, James & Mary	WATER	160
120992692200	Wheatland, Marty	WATER	180
120992692800	Trosper, Robert	WATER	120
120992694100	Bonnie Plant Farm	WATER	200
120992696400	Rhodes, Bruce	WATER	180
120992696500	Dunley Construction	WATER	100
120992700400	Larson, Jeff & Jennifer	WATER	130
120992700800	Winders, Donald & Michelle	WATER	140
120992705800	Leamy, Dennis	WATER	220
120992706000	Kleinprinz, Greg	WATER	200
120992706800	Shaley, George & Kelly	WATER	220
120992706900	Stone, Joseph	WATER	180
120992709000	Bailey, Rod	WATER	160
120992709900	Thompson, Glen	WATER	100
120992710000	Jeffries, Jim & Cindy	WATER	180
120992710300	Krug, Matthew	WATER	160
120992717700	Sparks, Ken Sr./Lambert, P.	WATER	180
120992719300	Stohl, Daryl & Sally	WATER	200
120992720600	Liverpool Leeds Inc.	WATER	180

120992720800	Echols, Bill & Carrie	WATER	140
120992721800	Nagle, Shane	WATER	180
120992722400	Nowak, Matt	WATER	180
120992722500	Bark, Curtis	WATER	100
120992722700	Walker, Leon	WATER	240
120992722800	Miller, Tom & Lori	WATER	400
120992728200	Kleinprinz, Greg	WATER	200
120992729300	Creager, Paul	WATER	220
120992729400	Chilson, Dale	WATER	440
120992729600	Callaway, Jeff	WATER	180
120992729900	Buehl, Mark	WATER	180
120992730200	Cainan, Debra	WATER	240
120992730300	Fiesel, Joe	WATER	180
120992730600	Ross, Barbara	WATER	200
120992730700	Vogel, Bill	WATER	200
120992731100	Thompson, Verne & Stephanie	WATER	260
120992731500	Enoch, Gerald	WATER	160
120992732100	Chivors, Glenn & Ruth	WATER	200
120992732600	McCaslin, Ron	WATER	160
120992734600	Gandhi, Romal Dr.	WATER	200
120992735400	Manning, Glenn	WATER	180
120992735700	Bright, Kathy	WATER	140
120992735900	Oakes, Brad & Julie	WATER	160
120992736000	Johnson, Edie	WATER	260
120992736600	Clear Water Homes	WATER	160
120992737900	Maguire, Robert	WATER	220
120992738100	Duttlinger, Tom & Michelle	WATER	180
120992738300	Meagher, Julie & Marty	WATER	180
120992743800	Grumieaux, Jack	WATER	260
120992743900	Riley, Tom	WATER	120
120992744600	Tompson, David	WATER	180

120992746700	Shelton, Dan & Amanda	WATER	240
120992748600	Johnson, Stephen & Mary	WATER	200
120992748700	McGinnis, Keith & Ann	WATER	200
120992751200	Asks Development	WATER	180
120992751300	Lawrentz, Kevin	WATER	160
120992751400	McDonald, Pat	WATER	100
120992751500	Marvin, Tom	WATER	160
120992751600	Broadus, Randy	WATER	160
120992751700	Galyez, Jorge	WATER	220
120992751800	Rush, Jeane	WATER	400
120992752400	Davis, Jim	WATER	100
120992754200	Johnson, Kyle & Kathy	WATER	180
120992754900	Marvin, Tom	WATER	180
120992755000	KBLZ, LLC	WATER	200
120992755300	Shannon, John	WATER	160
120992755700	Clearwater Homes/Tim Collins	WATER	150
120992756000	Stout & Evola Builders	WATER	200
120992757000	Snook, Bob & Lisa	WATER	200
120992758600	Stoller, Clark	WATER	240
120992758700	Stripe America Homes Div.	WATER	460
120992758800	Johnson, Corey	WATER	180
120992758900	Miller, Frank	WATER	200
120992759200	Caputo, Rudy & Michele	WATER	200
120992759300	Castelli, Bob	WATER	100
120992759600	Pigorza, James & Taisha	WATER	160
120992759900	Brignon, William	WATER	200
120992760100	CUSD 3 Serena HS	WATER	200
120992760200	Rogers, Tracy/CMR Constr.	WATER	200
120992764300	Enoch, Gerald	WATER	160
120992766300	Thoms, James & Cheryl	WATER	430

120992768000	Jahp, Brian & Mindi/ R.P.Constr	WATER	160
120992769900	Clearwater Homes	WATER	140
120992770000	Marvin, Tom	WATER	160
120992771400	Gribble, John-Tom Riley Bldrs	WATER	120
120992774100	Imel, Curt	WATER	440
120992774200	Evola, Vince	WATER	240
120992776700	Freebairn, Ralph	WATER	200
120992776800	Rosales, Rogelio	WATER	200
120992776900	Bohnstengel, Walter & Colette	WATER	160
120992777100	Donahue, Tim & Cindy	WATER	160
120992777200	Marvin Contracting	WATER	160
120992782300	First Farm Credit Services	WATER	240
120992782400	Callahan, Curt	WATER	180
120992782500	Wedron Silica Sand	WATER	180
120992782600	Strope, Jim	WATER	200
120992783400	Faivre, Rich & Bridget	WATER	160
120992783500	Tollefson, Wes & Dolores	WATER	160
120992783600	Wiley Development L.L.C.	WATER	140
120992786700	Etscheid, Jeffery	WATER	200
120992790000	Gaydos, Russell	WATER	200
120992790100	Carroll, Brett & Lynn	WATER	180
120992790200	Ericzon, James & Kara	WATER	200
120992790300	Enoch, Matt	WATER	220
120992790400	Hively Properties LLC	WATER	300
120992790600	Stone, Marvin	WATER	400
120992790700	Olson, Ronald	WATER	180
120992790800	Dillarou, Gary & Jamie	WATER	200

120992795800	Wedron Silica Co	WATER	180
120992795900	Redden Construction	WATER	200
120992796000	Maynard, Thomas L	WATER	180
120992796200	Kleinprinz, Greg & Dana	WATER	260
120992796600	Ville, Bill Don Dan	WATER	180
120992798600	Bonnie Plant Farm	WATER	240
120992799000	Svoboda, Robert	WATER	160
120992799100	Grady, Jeffrey	WATER	260
120992802100	Leadingham, Don	WATER	300
120992802200	Gaynor, Trudy	WATER	260
120992802300	Maison, Terry & Judith	WATER	200
120992802400	Maison, Terry & Judith	WATER	180
120992804100	Parquette, Ronald & Julie	WATER	200
120992805800	Henneke, Chuck	WATER	160
120992805900	Wieland, Roger Jr	WATER	260
120992806100	Rowney, David	WATER	340
120992806400	Marshall, Paul	WATER	200
120992807300	Rohwer, Mark General Cont	WATER	200
120992808500	Nelson, Matt	WATER	400
120992809000	Coghill, Kay	WATER	85
120992809800	Bernard, Dan	WATER	220
120992810800	Gallops, Jim / Dissell, Richard	WATER	180
120992810900	Olson, Jim	WATER	220
120992811500	Jessen, Robert % DJK Custom Homes	WATER	200
120992813700	Wedron Silica % Gerber, Shawn	WATER	400
120992814800	Jimenez, Luis	WATER	320
120992816500	Twait, Craig	WATER	180
120992816600	Basse, Tom	WATER	260

120992817600	Kim, Jae % Yoesle & Eddy Const	WATER	200
120992817900	Turn-Key Processing Solns Inc	WATER	300
120992822200	Kiest, Larry	WATER	260
120992822300	Kay, Gregg	WATER	460
120992822400	Strezo, Chuck	WATER	160
120992824500	Road Ranger LLC	WATER	500
120992827600	Stone, Mike	WATER	400
120992827700	Sampson, Christine	WATER	160
120992830700	Spalding, Jim	WATER	460
120992832300	Cole, Kathleen	WATER	140
120992832400	Wedron Silica Company	WATER	360
120992832500	Ottawa Airport, Inc.	WATER	440
120992832800	Bergren, Tim	WATER	160
120992832900	Kueteman, Mel & Giorgia	WATER	300
120992836300	Wedrow Silica	MONIT	44
120992836500	Wedron Silica	MONIT	46
120992836600	Wedron Silica	MONIT	46
120992836700	Wedron Silica	MONIT	45
120992836800	Wedron Silica	MONIT	46
120992836900	Wedron Silica	MONIT	79
120992837000	Wedron Silica	MONIT	47
120992837200	Koch, Ron	WATER	400
120992837300	Backos, Leon	WATER	260
120992837400	Hermann, Linda	WATER	280
120992837500	Murphy, Uernis & Ray	WATER	100
120992837600	Carretto, Butch & Elizabeth	WATER	200
120992837900	Stewart, Richard	WATER	207
120992838000	Nelson, Don	WATER	220
120992838200	Scheibenreif, Dan & Kathy	WATER	160
120992839800	Wedron Silica	WATER	34
120992839900	Wedron Silica	WATER	33

120992840900	Marsh, Bill & Octavia Davis	WATER	320
120992844700	Brown, Soctt	WATER	180
120992844800	DeBernardi, Brant & Brett	WATER	200
120992845000	Dayest, Norma	WATER	240
120992845400	Dolder, Ben & Lea	WATER	160
120992845600	Keigley, Junior & Wendy	WATER	180
120992850400	Leigh, Jon	WATER	200
120992850500	Renkosik, Cody & Chanel	WATER	460
120992851400	Christie, Anna Mae	WATER	150
120992851500	Robinson, Kevin	WATER	200
120992851800	Finley, Jake c/o Rob Phelps	WATER	160
120992852000	Lawson, Raymond & Nina	WATER	200
120992854000	Fleck, Matthew	WATER	190
120992855700	Thrush, Nick	WATER	460
120992855800	Camp Tuckabatchee	WATER	340
120992855900	Lamie, Margaret	WATER	240
120992856000	Eirhart, Cindy	WATER	240
120992856100	Olmstead, Everett	WATER	220
120992856200	Smith, Michael T.	WATER	220
120992856300	Stafford, Ryan	WATER	220
120992856400	Keist, Larry	WATER	220
120992856500	Thompson, Stephanie	WATER	240
120992856600	Wedron United Methodist Church	WATER	220
120992856800	Callahan, Ronald	WATER	155
120992856900	Robinson, Gary	WATER	180
120992857100	Manning, Glenn	WATER	420
120992857400	Warren, Mike	WATER	160
120992857500	Grainco FS, Inc.	WATER	220
120992860600	Fleck, Matt	WATER	180

120992860700	Fleckstone Construction	WATER	200
120992860800	Stone, Joe	WATER	400
120992860900	Lane, Charles	WATER	400
120992861000	Torres, Bob	WATER	440
120992862300	Myers, Ryan	WATER	120
120992862400	Boyd, Janae	WATER	180
120992869800	Leipold, Bud	WATER	165
120992869900	Hall, Mike	WATER	180
120992870900	Rolyn Homes	WATER	245
120992874800	Yoesle & Eddy Construction	WATER	155
120992875100	Hallett, Rita	WATER	125
120992875200	Wheatland, Richard J.	WATER	180
120992875300	Koch, Ron	WATER	160
120992875400	Total, Dick	WATER	195
120992875800	Wedron Silica	WATER	80
120992875900	Wieland, Roger	WATER	100
120992876100	Cook, Marian & Michael Ruiz	WATER	205
120992876200	Lethiot, James	WATER	180
120992876300	Thorsen, Ed	WATER	180
120992877800	McConville, Joe	WATER	140
120992878000	Hitchens, Greg	WATER	160
120992878100	Yoesle & Eddy	WATER	185
120992878200	Robinson, Lisa	WATER	140
120992882400	Purcell, Cody	WATER	205
120992882500	Simply Modern Homes	WATER	205
120992882700	Simply Modern Homes	WATER	220
120992882800	Crum, Dominic	WATER	400
120992884700	Wallace, David	WATER	460
120992887200	Jobst, Adam	WATER	460
120992887300	Carlson, Ken & Anne	WATER	200
120992887400	Hart, Tom	WATER	460
120992887500	Alsene, Andrew & Sarah	WATER	200
120992887600	Simply Modern Homes	WATER	200
120992887700	Gross, Brett & Laura	WATER	200
120992888100	Friede, Jimmy	WATER	400

120992888200	Caputo, Kipp	WATER	200
120992888500	Waste Management	WATER	240
120992889300	Billings, Dave	WATER	160
120992889400	Kellogg, Derrick	WATER	160
120992891100	Handzus, Lance & Morgan	WATER	460
120992892600	Gross, Chad & Amy	WATER	200
120992892700	Riest, Larry	WATER	360
120992892800	Interstate Producers	WATER	200
120992893000	Reger Enterprises	WATER	180
120992894700	Gaworski, Brad	WATER	220
120992897500	Wheatland, Marty	WATER	400
120992897600	Cottingham, Blake & Bridget	WATER	200
120992897700	Gunderson, Ryan	WATER	200
120992897800	Fox, Jon	WATER	180
120992898000	Ottawa Airport Inc	WATER	440
120992898300	Schneider, Paulette	WATER	120
120992903100	Gossor, Dave	WATER	300
120990113200	Trumbo, Mrs. Franklin	WATER	211
120992368700	Davis, Lorence G.	WATER	120