

Application

Part *II*

Tables

Table 1	OCD wells within the area of review
Table 2a	BLM leases within the area of review
Table 2b	State leases within the area of review
Table 2c	Surface Owners within area of review
Table 2d	Mineral Ownership within area of review
Table 3	Produced Water Chemistry of Nearby Wells
Table 4	Formational water quality data

Table 1
NM Oil and Gas Wells within 2 Miles

API	OGRID	OGRID Name	Status	Well Type	Well Name	UL-S-T-R	Total Depth	Associated Pools
30-025-01802	214263	PRE-ONGARD WELL OPERATOR	P	O	PRE-ONGARD WELL #001	M-32-22S-33E	5240	<Null>
30-025-08112	214263	PRE-ONGARD WELL OPERATOR	P	O	PRE-ONGARD WELL #001	A-36-22S-32E	5068	<Null>
30-025-08116	214263	PRE-ONGARD WELL OPERATOR	P	O	PRE-ONGARD WELL #001	G-11-23S-32E	5085	<Null>
30-025-08355	214263	PRE-ONGARD WELL OPERATOR	P	O	PRE-ONGARD WELL #001	P-06-23S-33E	5204	<Null>
30-025-08356	214263	PRE-ONGARD WELL OPERATOR	P	O	PRE-ONGARD WELL #001	4-07-23S-33E	5131	<Null>
30-025-08357	214263	PRE-ONGARD WELL OPERATOR	P	O	PRE-ONGARD WELL #001	4-18-23S-33E	5227	<Null>
30-025-21397	214263	PRE-ONGARD WELL OPERATOR	P	O	PRE-ONGARD WELL #001	B-18-23S-33E	5241	<Null>
30-025-26496	255333	LIME ROCK RESOURCES A, L.P.	P	O	PRONGHORN AHO FEDERAL #001	G-06-23S-33E	10160	[51689] RED TANK, DELAWARE, WEST; [83150] PRONGHORN, STRAWN-ATOKA (GAS); [96228] PRONGHORN, BONE SPRING
30-025-28223	229137	COG OPERATING LLC	A	O	NEW MEXICO DL STATE #001	I-18-23S-33E	9030	[14910] CRUZ, DELAWARE; [66253] LEA UNDESIGNATED, GROUP 6
30-025-28272	214263	PRE-ONGARD WELL OPERATOR	P	O	PRE-ONGARD WELL #001	F-08-23S-33E	5295	<Null>
30-025-28579	214	ADAMS OIL & GAS PRODUCERS	P	O	FEDERAL #001	E-17-23S-33E	5300	[14910] CRUZ, DELAWARE
30-025-28607	229137	COG OPERATING LLC	A	O	NEW MEXICO DL STATE #002	O-18-23S-33E	5428	[14910] CRUZ, DELAWARE
30-025-28608	270329	ENDURANCE RESOURCES LLC	P	O	NEW MEXICO DL STATE #003	H-18-23S-33E	5301	[14910] CRUZ, DELAWARE
30-025-28609	229137	COG OPERATING LLC	A	O	NEW MEXICO DL STATE #004	N-18-23S-33E	5312	[14910] CRUZ, DELAWARE
30-025-28610	270329	ENDURANCE RESOURCES LLC	P	O	NEW MEXICO DL STATE #005	J-18-23S-33E	5320	[14910] CRUZ, DELAWARE
30-025-28667	214	ADAMS OIL & GAS PRODUCERS	P	O	FEDERAL #002	D-17-23S-33E	5300	[14910] CRUZ, DELAWARE
30-025-28680	229137	COG OPERATING LLC	A	O	NEW MEXICO EF STATE #001	L-17-23S-33E	5253	[14910] CRUZ, DELAWARE
30-025-28681	270329	ENDURANCE RESOURCES LLC	P	O	NEW MEXICO DL STATE #007	A-18-23S-33E	5251	[14910] CRUZ, DELAWARE
30-025-28686	214263	PRE-ONGARD WELL OPERATOR	C	O	PRE-ONGARD WELL #008	G-18-23S-33E	0	<Null>
30-025-28696	214263	PRE-ONGARD WELL OPERATOR	C	O	PRE-ONGARD WELL #002	C-17-23S-33E	0	<Null>
30-025-28698	214263	PRE-ONGARD WELL OPERATOR	C	O	PRE-ONGARD WELL #004	F-17-23S-33E	0	<Null>
30-025-28927	215099	CIMAREX ENERGY CO.	A	O	PRONGHORN AAP FEDERAL #001	M-08-23S-33E	5370	[14910] CRUZ, DELAWARE
30-025-29230	214263	PRE-ONGARD WELL OPERATOR	C	O	PRE-ONGARD WELL #001	C-08-23S-33E	0	<Null>
30-025-29321	214263	PRE-ONGARD WELL OPERATOR	P	O	PRE-ONGARD WELL #001	E-08-23S-33E	5310	<Null>
30-025-31945	25575	EOG Y RESOURCES, INC.	C	O	AMANDA AMN FEDERAL #002	C-11-23S-32E	0	<Null>
30-025-31947	215099	CIMAREX ENERGY CO.	A	O	AMANDA AMN FEDERAL #001	F-11-23S-32E	9100	[17647] DIAMONDTAIL, DELAWARE
30-025-32108	162683	CIMAREX ENERGY CO. OF COLORADO	P	O	SAFFRON AON STATE #001	G-02-23S-32E	10320	[17647] DIAMONDTAIL, DELAWARE; [96100] SWD, DELAWARE
30-025-32233	25575	EOG Y RESOURCES, INC.	P	O	JACKAL ANJ FEDERAL #002	E-04-23S-33E	5291	[96033] WILDCAT, GROUP 2
30-025-32837	7377	EOG RESOURCES INC	H	O	MULE DEER 36 STATE #001	B-36-22S-32E	9018	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
30-025-33014	7377	EOG RESOURCES INC	A	O	MULE DEER 36 STATE #002	G-36-22S-32E	9000	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
30-025-33082	16696	OXY USA INC	H	O	RED TANK 31 STATE #001	1-31-22S-33E	9010	[51687] RED TANK, BONE SPRING, EAST; [51689] RED TANK, DELAWARE, WEST
30-025-33093	7377	EOG RESOURCES INC	A	O	MULE DEER 36 STATE #003	J-36-22S-32E	9000	[51683] RED TANK, BONE SPRING
30-025-33107	7377	EOG RESOURCES INC	A	O	MULE DEER 36 STATE #004	A-36-22S-32E	9007	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
30-025-33196	17891	POGO PRODUCING CO	C	O	RED TANK 31 STATE #003	C-31-22S-33E	0	<Null>
30-025-33239	7377	EOG RESOURCES INC	H	O	MULE DEER 36 STATE #005	H-36-22S-32E	9024	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
30-025-33246	16696	OXY USA INC	A	O	SHELL STATE #003	F-36-22S-32E	9050	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
30-025-33354	215099	CIMAREX ENERGY CO.	H	O	APRIL APZ STATE #001	A-12-23S-32E	10860	[17644] DIAMONDTAIL, BONE SPRING; [96643] DIAMONDTAIL, DELAWARE, EAST
30-025-33370	215099	CIMAREX ENERGY CO.	P	O	THYME APY FEDERAL #001	2-01-23S-32E	10250	[51683] RED TANK, BONE SPRING
30-025-33431	16696	OXY USA INC	A	O	RED TANK 31 STATE #002	2-31-22S-33E	9050	[51687] RED TANK, BONE SPRING, EAST; [51689] RED TANK, DELAWARE, WEST
30-025-33498	7377	EOG RESOURCES INC	A	O	MULE DEER 36 STATE #006	O-36-22S-32E	9080	[51683] RED TANK, BONE SPRING
30-025-33529	215099	CIMAREX ENERGY CO.	P	O	THYME APY FEDERAL #002	G-01-23S-32E	9154	[51683] RED TANK, BONE SPRING
30-025-33530	255333	LIME ROCK RESOURCES A, L.P.	P	O	THYME APY FEDERAL #003	3-01-23S-32E	9150	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
30-025-33531	215099	CIMAREX ENERGY CO.	H	O	CORIANDER AOC STATE #001	1-01-23S-32E	9121	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
30-025-33538	26485	BURLINGTON RESOURCES OIL & GAS CO	P	O	PRONGHORN 12 FEDERAL #001	C-12-23S-32E	9200	[17644] DIAMONDTAIL, BONE SPRING; [17647] DIAMONDTAIL, DELAWARE
30-025-33574	25575	EOG Y RESOURCES, INC.	P	O	CORIANDER AOC STATE #002	H-01-23S-32E	9170	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
30-025-33575	25575	EOG Y RESOURCES, INC.	C	O	CORIANDER AOC STATE #003	I-01-23S-32E	0	<Null>
30-025-33580	16696	OXY USA INC	A	O	RED TANK 31 STATE #004	4-31-22S-33E	9100	[51687] RED TANK, BONE SPRING, EAST; [51689] RED TANK, DELAWARE, WEST
30-025-33585	25575	EOG Y RESOURCES, INC.	C	O	THYME APY FEDERAL #004	N-01-23S-32E	0	<Null>
30-025-33586	25575	EOG Y RESOURCES, INC.	C	O	THYME APY FEDERAL #005	O-01-23S-32E	0	<Null>
30-025-33629	25575	EOG Y RESOURCES, INC.	C	O	THYME APY FEDERAL #006	F-01-23S-32E	0	<Null>
30-025-33630	25575	EOG Y RESOURCES, INC.	C	O	THYME APY FEDERAL #007	J-01-23S-32E	0	<Null>
30-025-33631	25575	EOG Y RESOURCES, INC.	C	O	THYME APY FEDERAL #008	K-01-23S-32E	0	<Null>
30-025-33632	25575	EOG Y RESOURCES, INC.	C	O	CORIANDER AOC STATE #004	I-01-23S-32E	0	<Null>
30-025-33673	25575	EOG Y RESOURCES, INC.	C	O	THYME APY FEDERAL #009	4-01-23S-32E	0	<Null>
30-025-33674	25575	EOG Y RESOURCES, INC.	C	O	THYME APY FEDERAL #010	E-01-23S-32E	0	<Null>
30-025-33675	25575	EOG Y RESOURCES, INC.	C	O	THYME APY FEDERAL #011	L-01-23S-32E	0	<Null>
30-025-33676	25575	EOG Y RESOURCES, INC.	C	O	THYME APY FEDERAL #012	M-01-23S-32E	0	<Null>
30-025-33688	7377	EOG RESOURCES INC	A	O	MULE DEER 36 STATE #007	P-36-22S-32E	9050	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
30-025-33823	7377	EOG RESOURCES INC	P	O	MULE DEER 36 STATE #008	I-36-22S-32E	9088	[51683] RED TANK, BONE SPRING
30-025-34331	21712	STRATA PRODUCTION CO	C	O	SHELL STATE #004	K-36-22S-32E	0	<Null>
30-025-34332	21712	STRATA PRODUCTION CO	C	O	SHELL STATE #006	E-36-22S-32E	0	<Null>
30-025-34879	16696	OXY USA INC	A	O	SHELL STATE #004	E-36-22S-32E	8950	[51689] RED TANK, DELAWARE, WEST
30-025-35235	16696	OXY USA INC	H	O	SHELL STATE #006	L-36-22S-32E	8950	[51689] RED TANK, DELAWARE, WEST
30-025-35242	17891	POGO PRODUCING CO	C	O	SHELL STATE #005	K-36-22S-32E	0	<Null>
30-025-35995	25575	EOG Y RESOURCES, INC.	C	O	THYME APY FEDERAL #012	M-01-23S-32E	0	<Null>
30-025-36192	215099	CIMAREX ENERGY CO.	A	S	THYME APY FEDERAL #011	L-01-23S-32E	9150	[17644] DIAMONDTAIL, BONE SPRING; [51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST; [96100] SWD, DELAWARE
30-025-36887	25575	EOG Y RESOURCES, INC.	C	O	THYME APY FEDERAL #010	E-01-23S-32E	0	<Null>
30-025-36888	25575	EOG Y RESOURCES, INC.	C	O	THYME APY FEDERAL #012M	M-01-23S-32E	0	<Null>
30-025-38135	25575	EOG Y RESOURCES, INC.	C	O	THYME APY FEDERAL #010E	E-01-23S-32E	0	<Null>
30-025-38137	25575	EOG Y RESOURCES, INC.	C	G	THYME APY FEDERAL #012M	M-01-23S-32E	0	<Null>
30-025-40181	229137	COG OPERATING LLC	A	O	REDTAIL STATE COM #001H	1-02-23S-32E	9961	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST

Table 1
NM Oil and Gas Wells within 2 Miles

API	OGRID	OGRID Name	Status	Well Type	Well Name	UL-S-T-R	Total Depth	Associated Pools
30-025-40366	215099	CIMAREX ENERGY CO.	C	O	CORIANDER AOC STATE #005C	1-01-235-32E	0	[51683] RED TANK, BONE SPRING
30-025-40367	215099	CIMAREX ENERGY CO.	C	O	CORIANDER AOC STATE #006H	1-01-235-32E	0	[51683] RED TANK, BONE SPRING
30-025-40438	215099	CIMAREX ENERGY CO.	N	O	THYME APY FEDERAL #004	4-01-235-32E	0	[51683] RED TANK, BONE SPRING
30-025-40559	162683	CIMAREX ENERGY CO. OF COLORADO	A	O	CUERVO FEDERAL #020H	A-14-235-32E	10928	[17644] DIAMONDTAIL, BONE SPRING
30-025-40806	7377	EOG RESOURCES INC	C	O	FOGHORN BFM STATE COM #001C	P-32-225-33E	0	[51687] RED TANK, BONE SPRING, EAST; [97922] WC-025 G-06 S223421L, BONE SPRING
30-025-41420	215099	CIMAREX ENERGY CO.	C	O	THYME APY FEDERAL #005C	4-01-235-32E	0	[51683] RED TANK, BONE SPRING
30-025-41421	215099	CIMAREX ENERGY CO.	C	O	THYME APY FEDERAL #006C	3-01-235-32E	0	[51683] RED TANK, BONE SPRING
30-025-41422	215099	CIMAREX ENERGY CO.	C	O	THYME APY FEDERAL #007C	3-01-235-32E	0	[51683] RED TANK, BONE SPRING
30-025-41423	215099	CIMAREX ENERGY CO.	C	O	THYME APY FEDERAL #008C	2-01-235-32E	0	[51683] RED TANK, BONE SPRING
30-025-41425	270329	ENDURANCE RESOURCES LLC	C	O	JAZZMASTER 17 STATE #002C	C-17-235-33E	0	[14865] CRUZ, BONE SPRING
30-025-41426	229137	COG OPERATING LLC	A	O	JAZZMASTER 17 STATE #003H	B-17-235-33E	10973	[14865] CRUZ, BONE SPRING
30-025-41427	270329	ENDURANCE RESOURCES LLC	C	O	JAGUAR 18 STATE #001C	1-18-235-33E	0	[14865] CRUZ, BONE SPRING
30-025-41428	229137	COG OPERATING LLC	A	O	JAGUAR 18 STATE #002H	N-18-235-33E	12162	[14865] CRUZ, BONE SPRING
30-025-41429	229137	COG OPERATING LLC	A	O	JAGUAR 18 STATE #003H	O-18-235-33E	9775	[14865] CRUZ, BONE SPRING
30-025-41430	270329	ENDURANCE RESOURCES LLC	C	O	JAGUAR 18 STATE #004C	A-18-235-33E	0	[14865] CRUZ, BONE SPRING
30-025-41495	162683	CIMAREX ENERGY CO. OF COLORADO	A	O	CUERVO FEDERAL #021H	B-14-235-32E	9718	[17644] DIAMONDTAIL, BONE SPRING
30-025-41501	215099	CIMAREX ENERGY CO.	A	O	THYME APY FEDERAL #009H	2-01-235-32E	9250	[51683] RED TANK, BONE SPRING
30-025-41885	16696	OXY USA INC	A	O	RED TANK 31 STATE #005H	A-31-225-33E	10756	[51687] RED TANK, BONE SPRING, EAST
30-025-41948	372098	MARATHON OIL PERMIAN LLC	N	O	URRACA FEDERAL COM #022H	C-11-235-32E	0	[17644] DIAMONDTAIL, BONE SPRING
30-025-42048	372098	MARATHON OIL PERMIAN LLC	C	O	URRACA FEDERAL COM #025C	A-11-235-32E	0	[17644] DIAMONDTAIL, BONE SPRING
30-025-42094	162683	CIMAREX ENERGY CO. OF COLORADO	A	O	CUERVO FEDERAL #026H	A-14-235-32E	9795	[17644] DIAMONDTAIL, BONE SPRING
30-025-42109	372098	MARATHON OIL PERMIAN LLC	C	O	URRACA FEDERAL COM #023C	B-11-235-32E	0	[17644] DIAMONDTAIL, BONE SPRING
30-025-42148	215099	CIMAREX ENERGY CO.	C	O	CORIANDER AOC STATE #005C	1-01-235-32E	0	[51683] RED TANK, BONE SPRING
30-025-42155	215099	CIMAREX ENERGY CO.	C	O	CORIANDER AOC STATE #006C	1-01-235-32E	0	[51683] RED TANK, BONE SPRING
30-025-42169	229137	COG OPERATING LLC	N	O	RESOLVER FEDERAL COM #001H	D-12-235-32E	0	[17644] DIAMONDTAIL, BONE SPRING
30-025-42170	229137	COG OPERATING LLC	A	O	RESOLVER FEDERAL COM #002H	C-12-235-32E	9788	[17644] DIAMONDTAIL, BONE SPRING
30-025-42226	372098	MARATHON OIL PERMIAN LLC	A	O	URRACA 11 AV FEDERAL COM #024H	C-11-235-32E	9696	[17644] DIAMONDTAIL, BONE SPRING
30-025-42254	372098	MARATHON OIL PERMIAN LLC	N	O	CUERVO FEDERAL #025H	A-14-235-32E	0	[17644] DIAMONDTAIL, BONE SPRING
30-025-42255	372098	MARATHON OIL PERMIAN LLC	N	O	URRACA FEDERAL COM #024H	B-11-235-32E	0	[17644] DIAMONDTAIL, BONE SPRING
30-025-43437	229137	COG OPERATING LLC	N	O	JAGUAR 18 STATE #001H	1-18-235-33E	0	[14865] CRUZ, BONE SPRING
30-025-43438	229137	COG OPERATING LLC	N	O	JAGUAR 18 STATE #004H	A-18-235-33E	0	[14865] CRUZ, BONE SPRING
30-025-43736	215099	CIMAREX ENERGY CO.	A	O	CORIANDER AOC 1-12 STATE #001H	1-01-235-32E	9557	[17644] DIAMONDTAIL, BONE SPRING
30-025-43737	215099	CIMAREX ENERGY CO.	A	O	CORIANDER AOC 1-12 STATE #002H	1-01-235-32E	9747	[17644] DIAMONDTAIL, BONE SPRING
30-025-43738	215099	CIMAREX ENERGY CO.	N	O	CORIANDER AOC 1-12 STATE #003H	1-01-235-32E	0	[17644] DIAMONDTAIL, BONE SPRING
30-025-45605	374146	Delaware Water Management Company, LLC	N	S	R WALLMAN STATE SWD #001	4-07-235-33E	0	[96101] SWD, DEVONIAN

Table 2a
BLM Oil and Gas Leases within 1-Mile

Lease Number	Name	Township	Range	Section	Unit Letter
NMNM 020073	EOG RESOURCES INC	23S	33E	05	L
NMNM 020073	EOG RESOURCES INC	23S	33E	05	M
NMNM 020073	EOG RESOURCES INC	23S	33E	08	L
NMNM 081274	CIMAREX ENERGY CO	23S	32E	01	B
NMNM 081274	CIMAREX ENERGY CO	23S	32E	01	C
NMNM 081274	CIMAREX ENERGY CO	23S	32E	01	F
NMNM 081274	CIMAREX ENERGY CO	23S	32E	01	G
NMNM 081274	CIMAREX ENERGY CO	23S	32E	01	J
NMNM 081274	CIMAREX ENERGY CO	23S	32E	01	K
NMNM 081274	CIMAREX ENERGY CO	23S	32E	01	L
NMNM 081274	CIMAREX ENERGY CO	23S	32E	01	M
NMNM 081274	CIMAREX ENERGY CO	23S	32E	01	N
NMNM 081274	CIMAREX ENERGY CO	23S	32E	01	O
NMNM 114982	COG OPERATING LLC	23S	32E	12	C
NMNM 114982	COG OPERATING LLC	23S	32E	12	D
NMNM 114982	COG OPERATING LLC	23S	32E	12	E
NMNM 114982	COG OPERATING LLC	23S	32E	12	F
NMNM 114985	CHEVRON USA INC	23S	33E	05	E
NMNM 126492	EOG Y RESOURCES INC	23S	33E	07	I
NMNM 126492	EOG Y RESOURCES INC	23S	33E	07	J
NMNM 129264	EOG RESOURCES INC	23S	33E	08	D
NMNM 129264	EOG RESOURCES INC	23S	33E	08	E
NMNM 0536344	CONOCOPHILLIPS CO	23S	32E	12	B
NMNM 0536344	CONOCOPHILLIPS CO	23S	32E	12	G
NMNM 0536344	CONOCOPHILLIPS CO	23S	32E	12	J
NMNM 0536344	CONOCOPHILLIPS CO	23S	32E	12	K
NMNM 0536344	CONOCOPHILLIPS CO	23S	32E	12	O

Table 2b
State Oil and Gas Leases within 1-Mile

Lease Number	Ogrid	Ogrid Name	Township	Range	Section	Unit Letter
V035270002	264073	OXY USA INC.	22S	33E	31	M
V035270002	264073	OXY USA INC.	22S	33E	31	N
V036520004	252846	CIMAREX ENERGY CO.	23S	32E	12	A
V036520004	252846	CIMAREX ENERGY CO.	23S	32E	12	H
V036520004	252846	CIMAREX ENERGY CO.	23S	32E	12	I
V036520004	252846	CIMAREX ENERGY CO.	23S	32E	12	P
V038120001	7377	EOG RESOURCES INC	22S	32E	36	P
V042970002	252846	CIMAREX ENERGY CO.	23S	32E	01	A
V042970002	252846	CIMAREX ENERGY CO.	23S	32E	01	H
V042970002	252846	CIMAREX ENERGY CO.	23S	32E	01	I
V042970002	252846	CIMAREX ENERGY CO.	23S	32E	01	P

Table 2c
Surface Ownership within 1-Mile

Township	Range	Section	Unit Letter	UPC	Name	Address	City	State	Zip
22S	32E	36	P	4191132334530	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
22S	33E	31	M	4196133629661	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
22S	33E	31	N	4196133629661	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	32E	01	A	4191133464264	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	32E	01	B	4191133199267	Bureau of Land Management	620 E. Greene Street	Carlsbad	NM	88220-6292
23S	32E	01	C	4191133199267	Bureau of Land Management	620 E. Greene Street	Carlsbad	NM	88220-6292
23S	32E	01	F	4191133199267	Bureau of Land Management	620 E. Greene Street	Carlsbad	NM	88220-6292
23S	32E	01	G	4191133199267	Bureau of Land Management	620 E. Greene Street	Carlsbad	NM	88220-6292
23S	32E	01	H	4191133464264	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	32E	01	I	4191133464264	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	32E	01	J	4191133199267	Bureau of Land Management	620 E. Greene Street	Carlsbad	NM	88220-6292
23S	32E	01	K	4191133199267	Bureau of Land Management	620 E. Greene Street	Carlsbad	NM	88220-6292
23S	32E	01	L	4191133199267	Bureau of Land Management	620 E. Greene Street	Carlsbad	NM	88220-6292
23S	32E	01	M	4191133199267	Bureau of Land Management	620 E. Greene Street	Carlsbad	NM	88220-6292
23S	32E	01	N	4191133199267	Bureau of Land Management	620 E. Greene Street	Carlsbad	NM	88220-6292
23S	32E	01	O	4191133199267	Bureau of Land Management	620 E. Greene Street	Carlsbad	NM	88220-6292
23S	32E	01	P	4191133464264	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	32E	12	A	4191134465264	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	32E	12	B	4191134200266	Bureau of Land Management	620 E. Greene Street	Carlsbad	NM	88220-6292
23S	32E	12	C	4191134200266	Bureau of Land Management	620 E. Greene Street	Carlsbad	NM	88220-6292
23S	32E	12	D	4191134200266	Bureau of Land Management	620 E. Greene Street	Carlsbad	NM	88220-6292
23S	32E	12	E	4191134200266	Bureau of Land Management	620 E. Greene Street	Carlsbad	NM	88220-6292
23S	32E	12	F	4191134200266	Bureau of Land Management	620 E. Greene Street	Carlsbad	NM	88220-6292
23S	32E	12	G	4191134200266	Bureau of Land Management	620 E. Greene Street	Carlsbad	NM	88220-6292
23S	32E	12	H	4191134465264	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	32E	12	I	4191134465264	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	32E	12	J	4191134200266	Bureau of Land Management	620 E. Greene Street	Carlsbad	NM	88220-6292
23S	32E	12	K	4191134200266	Bureau of Land Management	620 E. Greene Street	Carlsbad	NM	88220-6292
23S	32E	12	O	4191134200266	Bureau of Land Management	620 E. Greene Street	Carlsbad	NM	88220-6292
23S	32E	12	P	4191134465264	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	05	E	4193133267265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	05	L	4193133267265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	05	M	4193133267265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	06	A	4192133261265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	06	B	4192133261265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	06	C	4192133261265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	06	D	4192133261265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	06	E	4192133261265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	06	F	4192133261265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	06	G	4192133261265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	06	H	4192133261265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	06	I	4192133261265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	06	J	4192133261265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	06	K	4192133261265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	06	L	4192133261265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	06	M	4192133261265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	06	N	4192133261265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	06	O	4192133261265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	06	P	4192133261265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501

Table 2c
Surface Ownership within 1-Mile

Township	Range	Section	Unit Letter	UPC	Name	Address	City	State	Zip
23S	33E	07	A	4192134262265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	07	B	4192134262265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	07	C	4192134262265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	07	D	4192134262265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	07	E	4192134262265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	07	F	4192134262265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	07	G	4192134262265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	07	H	4192134262265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	07	I	4192134262265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	07	J	4192134262265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	07	K	4192134262265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	07	L	4192134262265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	07	M	4192134262265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	07	N	4192134262265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	07	O	4192134262265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	07	P	4192134262265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	08	D	4193134266265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	08	E	4193134266265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501
23S	33E	08	L	4193134266265	STATE OF NEW MEXICO	310 Old Santa Fe Trail	Santa Fe	NM	87501

Table 2d
Mineral Ownership within 1-Mile

Township	Range	Section	Unit Letter	Mineral Owner	Description
22S	32E	36	P	State (NM)	No minerals are owned by the BLM (U.S)
22S	33E	31	M	State (NM)	No minerals are owned by the BLM (U.S)
22S	33E	31	N	State (NM)	No minerals are owned by the BLM (U.S)
23S	32E	01	A	State (NM)	No minerals are owned by the BLM (U.S)
23S	32E	01	B	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	32E	01	C	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	32E	01	F	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	32E	01	G	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	32E	01	H	State (NM)	No minerals are owned by the BLM (U.S)
23S	32E	01	I	State (NM)	No minerals are owned by the BLM (U.S)
23S	32E	01	J	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	32E	01	K	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	32E	01	L	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	32E	01	M	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	32E	01	N	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	32E	01	O	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	32E	01	P	State (NM)	No minerals are owned by the BLM (U.S)
23S	32E	12	A	State (NM)	No minerals are owned by the BLM (U.S)
23S	32E	12	B	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	32E	12	C	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	32E	12	D	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	32E	12	E	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	32E	12	F	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	32E	12	G	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	32E	12	H	State (NM)	No minerals are owned by the BLM (U.S)
23S	32E	12	I	State (NM)	No minerals are owned by the BLM (U.S)
23S	32E	12	J	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	32E	12	K	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	32E	12	O	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	32E	12	P	State (NM)	No minerals are owned by the BLM (U.S)
23S	33E	05	E	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	05	L	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	05	M	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	06	A	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	06	B	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	06	C	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	06	D	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	06	E	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	06	F	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	06	G	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	06	H	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	06	I	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	06	J	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	06	K	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	06	L	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	06	M	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	06	N	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	06	O	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	06	P	BLM (U.S.)	All minerals are owned by the BLM (U.S.)

Table 2d
Mineral Ownership within 1-Mile

Township	Range	Section	Unit Letter	Mineral Owner	Description
23S	33E	07	A	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	07	B	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	07	C	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	07	D	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	07	E	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	07	F	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	07	G	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	07	H	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	07	I	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	07	J	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	07	K	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	07	L	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	07	M	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	07	N	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	07	O	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	07	P	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	08	D	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	08	E	BLM (U.S.)	All minerals are owned by the BLM (U.S.)
23S	33E	08	L	BLM (U.S.)	All minerals are owned by the BLM (U.S.)

Table 3
Produced Water

wellname	api	section	township	range	unit	county	state	company	field	formation	depth	labNo	sampleNo	sampledate	pH	specificgravity	ids_mgl	resistivity_ohm_cm	conductivity	conductivity_temp_F	sodium_mgl	calcium_mgl	iron_mgl	magnesium_mgl	manganese_mgl	chloride_mgl	bicarbonate_mgl	sulfate_mgl	co2_mgl		
DIAMONDTAIL 24 FEDERAL #001	3002533344	24	23S	32E	L	Lea	NM							8/12/2014 0:00	8.5		172490.2			59465.3	5813.5	121.6	1016.4	2.3	103630	199.2	0	700			
TOMCAT 21 FEDERAL #001	3002533356	21	23S	32E	F	Lea	NM							1/27/2015 0:00	5.4		246335.6			67632.8	16223.4	47.5	2611.1	3.16	157130.6		0	440			
TOMCAT 21 FEDERAL #003	3002533911	21	23S	32E	E	Lea	NM							1/27/2015 0:00	5.6		258460.4			66996.2	21006.5	27.5	3246.8	4.96	163589.5	85.4	0	460			
TOMCAT 17 FEDERAL #001	3002534690	17	23S	32E	P	Lea	NM							1/27/2015 0:00	5.4		254754.8			75267	19088.7	38.3	3181.3	3.69	154115.3	109.8	0	410			
TOMCAT 17 FEDERAL #002	3002534691	17	23S	32E	O	Lea	NM							1/27/2015 0:00	5.6		259999.9			71731	19634.8	33.2	3172.9	4.66	162178.7	73.2	0	350			
TOMCAT 17 FEDERAL #003	3002534692	17	23S	32E	I	Lea	NM							1/27/2015 0:00	5.7		264290.8			70140.2	21551.8	30	3406.5	5.31	165588.8	85.4	0	410			
TOMCAT 16 STATE #003	3002534809	16	23S	32E	L	Lea	NM							1/27/2015 0:00	5.51		282155.2			71636.9	27669.4	42.4	4186	15.6	173893.6	52.8	0	560			
TOMCAT 17 FEDERAL #004	3002534812	17	23S	32E	J	Lea	NM							1/27/2015 0:00	6		214893.4			56533.4	20158.6	47.9	3255	6.51	131133.5	158.6	0	440			
TOMCAT 16 STATE #007	3002534923	16	23S	32E	K	Lea	NM							1/27/2015 0:00	5.6		244760.3			71577.7	14674.1	78.8	2396.2	3.39	153409.7	73.2	0	450			
TOMCAT 16 STATE #008	3002534924	16	23S	32E	N	Lea	NM							1/27/2015 0:00	5.6		234317.5			71909.8	14412.9	43.1	2385.3	2.59	142924.3	97.6	0	450			
TOMCAT 20 FEDERAL #002	3002534926	20	23S	32E	B	Lea	NM							1/27/2015 0:00	5.4		270134.8			77379.6	21951.6	35.2	3491.7	5.17	163530.8	97.6	0	450			
TOMCAT 16 STATE #006	3002534949	16	23S	32E	H	Lea	NM							1/27/2015 0:00	5.6		277945.7			73900.1	24711.5	37.9	3853.4	7.16	171388.5	85.4	0	460			
TOMCAT 16 STATE #010	3002535045	16	23S	32E	B	Lea	NM							1/27/2015 0:00	5.4		279186.4			77799.6	25199.4	36.1	3983.2	7.97	167901	73.2	0	540			
TOMCAT 17 FEDERAL #002	3002535069	17	23S	32E	N	Lea	NM							1/27/2015 0:00	5.8		263310.1			72191.8	20761.4	31.3	3336	4.62	163470.4	61	0	560			
TOMCAT 17 FEDERAL #006	3002535070	17	23S	32E	D	Lea	NM							1/27/2015 0:00	6		212591.3			55454.4	19593.7	47.4	3169.4	6.31	130585.8	170.8	0	510			
TOMCAT 21 FEDERAL #004	3002535103	21	23S	32E	D	Lea	NM							1/27/2015 0:00	5.8		267412.2			72365.2	22048.5	68.1	3505.6	6.22	165712.8	85.4	0	490			
TOMCAT 20 FEDERAL #003	3002535145	20	23S	32E	H	Lea	NM							1/27/2015 0:00	5.6		268827.3			80098	22840.1	36.5	3635.1	5.35	158372.6	61	0	450			
TOMCAT 20 FEDERAL #004	3002535233	20	23S	32E	G	Lea	NM							1/27/2015 0:00	5.7		286428.9			81700.4	25986.7	38.8	4121.7	7.63	170121.3	85.4	0	440			
TOMCAT 20 FEDERAL #005	3002535234	20	23S	32E	I	Lea	NM							1/27/2015 0:00	5.8		289125			82158.6	27842	40.5	4402.1	12.29	170749.7	73.2	0	460			
TOMCAT 16 STATE #013	3002535411	16	23S	32E	A	Lea	NM							1/27/2015 0:00	5.7		281858.5			76891.4	24467.2	30.2	3873.1	7.57	172401.4	73.2	0	440			
TOMCAT 16 FEDERAL #006	3002535525	20	23S	32E	J	Lea	NM							1/27/2015 0:00	5.8		289344.8			80886.6	27354.5	38.6	4324.5	11.81	172664.1	61	0	490			
TOMCAT 21 FEDERAL #008	3002535526	21	23S	32E	L	Lea	NM							1/27/2015 0:00	5.8		283615.7			71175.7	23328.1	40.7	3550.5	6.23	161693.1	85.4	0	460			
TOMCAT 20 FEDERAL #007	3002537296	20	23S	32E	P	Lea	NM							1/27/2015 0:00	5.8		271016.7			67263	23647	33	3691	10.14	173080.7	61	0	520			
FALCON 32 STATE #003	3002535640	32	23S	32E	K	Lea	NM							1/28/2015 0:00	5.5		249184.8			71161.3	16116.1	33	2496.1	3.96	156337.9	85.4	0	410			
FALCON 32 STATE #004	3002536555	32	23S	32E	C	Lea	NM							1/28/2015 0:00	5.8		241993.3			72965.6	14328.7	29.4	2268.5	3.28	149603.8	97.6	0	340			
FALCON 32 STATE #005Y	3002539661	32	23S	32E	M	Lea	NM			DELAWARE-BRUSHY CANYON				1/28/2015 0:00	5.9		239678.9			74767.3	13436.5	40.6	2234	2.32	146645.4	73.2	0	420			
TRESNOR MITCHELL 30 FEDERAL #001	3002532688	30	23S	32E	N	Lea	NM	YATES DRILLING CORP	CAPROCK QUEEN	QUEEN				2/6/2015 0:00	5.6		249571.5			64522.7	19862.2	37.7	3105.9	6.36	159003.4	73	0	500			
FREIDA AFR FEDERAL #001	3002532197	3	23S	32E	A	Lea	NM	Yates Drilling Corp.	CAPROCK QUEEN	QUEEN				2/1/1989 0:00			149595			81800	0	0	1000	95	2450						
FREIDA AFR FEDERAL #001	3002532197	3	23S	32E	A	Lea	NM	Yates Drilling Corp.	CAPROCK QUEEN	QUEEN				2/1/1989 0:00	6.65		141520			84993	2000	0	1000	2600	80	2440					
THYME APY FEDERAL #002	3002533529	1	23S	32E	G	Lea	NM			BONE SPRING				11/27/2001 0:00	6.1	1.15	172896				0	0	2025	104976	781	1150					
DIAMONDTAIL 23 FEDERAL #002	3002533653	23	23S	32E	H	Lea	NM							8/6/2003 0:00	5.5		254950.9			68892.9	20721	15	3986		157297	54	386				
TOMCAT 21 FEDERAL #003	3002533911	21	23S	32E	E	Lea	NM							8/6/2003 0:00	5.77		271021.3			74712.7	22456	29	3204		166833	36.6	414	410			
TOMCAT 17 FEDERAL #001	3002534690	17	23S	32E	P	Lea	NM							8/6/2003 0:00	5.92		191165.8			56534.2	12620	26	2197		117118	36.6	675	240			
TOMCAT 16 STATE #004	3002534810	16	23S	32E	E	Lea	NM							8/6/2003 0:00	6.02		271775.9			74413.3	21773	23	3968		167535	36.6	471	420			
TOMCAT 20 FEDERAL #003	3002535525	20	23S	32E	H	Lea	NM							8/6/2003 0:00	5.71		306731			86277.4	23870	34	4884		168761	36.6	422	440			
FALCON 32 STATE #003	3002535640	32	23S	32E	K	Lea	NM							8/6/2003 0:00	6.25		257563.7			75558	27577	28	3550		158908	97.6	564	480			
TRESNOR MITCHELL 30 FEDERAL #001	3002532688	30	23S	32E	N	Lea	NM							11/12/2014 0:00	6.6		268970.5			72112.8	21665.9	39.2	3444	6.81	168477.5	148	34	440			
BOUNDARY RIDGER 6 FEDERAL #002H	3002541884	7	23S	32E	A	Lea	NM			BONE SPRING 2ND SAND				4/21/2015 0:00	5.5		198828.3		0.05417	63822.8	9826.5	65.2	1403.5	2.6	121113.4	183	17	480			
TRESNOR MITCHELL 30 FEDERAL #002	3002532754	30	23S	32E	F	Lea	NM							12/10/2003 0:00	6.5		253732			66510.2	21000	300	159281		48.8	5	0				
TRESNOR MITCHELL 30 FEDERAL #002	3002532754	30	23S	32E	F	Lea	NM							6/1/2004 0:00	7		274346.8			69620.8	25364	191	4427		168593	83	1202	1500			
TOMCAT 16 STATE #002	3002534306	16	23S	32E	M	Lea	NM							6/16/2004 0:00	6.03		258574.8			71555.9	21503	21	3027		159299	24.4	388	120			
TOMCAT 17 FEDERAL #001	3002534690	17	23S	32E	P	Lea	NM							6/16/2004 0:00	5.7		273483			74547.8	23392	23	3428		168676	12.2	366	130			
TOMCAT 15 FEDERAL #001	3002533801	15	23S	32E	L	Lea	NM							6/24/2003 0:00	6.5		201084.5			69400.9	22457.8	13	3465		180000	104	4900				
DIAMONDTAIL 24 FEDERAL #001	3002533344	24	23S	32E	L	Lea	NM							3/1/2005 0:00	6.4		204001.8			63879.5	10949	52	1736		124319	331.8	561	260			
DIAMONDTAIL 23 FEDERAL #002	3002533653	23	23S	32E	H	Lea	NM							3/1/2005 0:00	6.1		250482.4			68273	20951	35	3279		154286	124.4	407	220			
HORNET 6 FEDERAL #001	3002536486	6	23S	32E	A	Lea	NM							1/24/2007 0:00	5.5		274093.6			76944.1	20940	29	3694	5	168926	41.5	363				
TOMCAT 16 STATE #003	3002534809	16	23S	32E	L	Lea	NM							12/21/2007 0:00	6.5		257411.4			68023.5	21922	21	4210	9.5	158521	767.4	260	340			
TRESNOR MITCHELL 30 FEDERAL #003	3002532891	30	23S	32E	C	Lea	NM							6/17/2014 0:00	5.8		254589.4			76656.7	17566	53.7	2979.1	3.53	154409	61	2.5	40			
BOUNDARY RIDGER 6 FEDERAL #002H	3002541884	7	23S	32E	A	Lea	NM			BONE SPRING 2ND SAND				12/30/2014 0:00	6		117284.4			36911	5399.2	88.1	706.6	1.33	77443.9	378	17	200			
CORRIANDER AOC STATE #001	3002533574	1	23S	32E	H	Lea	NM			LIVINGSTON RIDGE				7/15/2000 0:00	5.23	1.193	167962			3815	200	0	1000		167962	61	11	200			
APRIL AP2 STATE #001	3002533534	12</																													

Table 3
Produced Water

wellname	api	section	township	range	unit	county	state	company	field	formation	depth	labNo	sampleNo	sampledate	pH	specificgravity	tds_mgl	resistivity_ohm_cm	conductivity	conductivity_temp_F	sodium_mgl	calcium_mgl	iron_mgl	magnesium_mgl	manganese_mgl	chloride_mgl	bicarbonate_mgl	sulfate_mgl	co2_mgl
THISTLE UNIT #043H	3002540898	33	23S	33E	M	Lea	NM			BONE SPRING 2ND SAND				5/7/2015 0:00	6.2						48663	10815	76	1497	2	98000	134	792	462
THISTLE UNIT #044H	3002541032	33	23S	33E	N	Lea	NM			BONE SPRING 2ND SAND				5/7/2015 0:00	6.4						54541	8845	28	1236	1.1	103000	146	534	330
THISTLE UNIT #046H	3002541118	33	23S	33E	N	Lea	NM			BONE SPRING 2ND SAND				5/7/2015 0:00	6.7						54205	8584	33	1249	1.2	102000	146	608	330
THISTLE UNIT #048H	3002541253	34	23S	33E	N	Lea	NM			BONE SPRING 2ND SAND				5/7/2015 0:00	6.6						56181	7137	15	1083	0.59	102000	122	626	330
THISTLE UNIT #049H	3002541254	34	23S	33E	N	Lea	NM			BONE SPRING 2ND SAND				5/7/2015 0:00	6.5						53470	8231	38	1196	0.9	100000	183	695	330
THISTLE UNIT #050H	3002541302	34	23S	33E	P	Lea	NM			BONE SPRING 2ND SAND				5/7/2015 0:00	6.7						60221	6449	42	772	1.4	106000	195	717	330
BLACK MAMBA 15 STATE COM #002H	3002540173	15	23S	33E	D	Lea	NM			BONE SPRING 2ND SAND				4/29/2014 0:00	6.2	1.78123					56623.9	9330.2	65.4	985.2	1.6	108363	183	752	350
TAIPAN 10 STATE COM #001H	3002540743	15	23S	33E	D	Lea	NM			BONE SPRING 2ND SAND				4/29/2014 0:00	6.1	1.79067					55815.4	9602.9	89	997.5	2.3	109984	122	684	300
THISTLE UNIT #061H	3002541487	22	23S	33E	M	Lea	NM			BONE SPRING 2ND SAND				5/1/2014 0:00	6.7	1.54843.8					51189.4	8662.8	20.4	924.1	1.5	91763	122	0	250
THISTLE UNIT #055H	3002541488	22	23S	33E	M	Lea	NM			BONE SPRING 2ND SAND				5/1/2014 0:00	6.4	144752.8					47940.9	7687.8	36.9	847.7	1.92	85978	122	0	300
BLACK MAMBA 15 STATE COM #002H	3002540173	15	23S	33E	D	Lea	NM			BONE SPRING 2ND SAND				12/17/2014 0:00	6.75						78099	12696	75	1273	1.4	148309	122	480	130
THISTLE UNIT #047H	3002541252	34	23S	33E	N	Lea	NM			BONE SPRING 2ND SAND				12/17/2014 0:00	6.25						77109	10168	43	1135	0.1	141623	110	580	130
THISTLE UNIT #057H	3002541341	22	23S	33E	O	Lea	NM			BONE SPRING 2ND SAND				12/17/2014 0:00	6.5						79448	10789	52	1174	1.2	146515	122	520	120
THISTLE UNIT #058H	3002541342	22	23S	33E	O	Lea	NM			BONE SPRING 2ND SAND				12/17/2014 0:00	6.5						60347	10265	60	1130	1.3	115793	134	560	100
THISTLE UNIT #064H	3002541468	22	23S	33E	O	Lea	NM			BONE SPRING 2ND SAND				1/8/2015 0:00	6.2						47696	7829	32	888	0.85	90068	61	540	190
THISTLE UNIT #055H	3002541488	22	23S	33E	M	Lea	NM			BONE SPRING 2ND SAND				1/8/2015 0:00	6.2						52748	8257	44	911	1	98911	73	460	190
PRONGHORN AHO FEDERAL #001	3002526496	6	23S	33E	G	LEA	NM		LIVINGSTON RIDGE	STRAWN				9/26/2000 0:00	5.5	1.148						20.1	0	12.2		35.5	61.1	48.8	
THISTLE UNIT #065H	3002541303	33	23S	33E	P	Lea	NM			BONE SPRING 2ND SAND				5/7/2015 0:00	6.5						53029	9452	70	1354	1.7	102000	122	668	330
TAIPAN 10 STATE COM #001H	3002540743	15	23S	33E	D	Lea	NM			BONE SPRING 2ND SAND				5/14/2015 0:00	6.7						57680	10931	52	1378	1.1	112000	134	492	660
SEA SNAKE 35 STATE #002H	3002541599	35	23S	33E	N	Lea	NM			BONE SPRING 2ND SAND				5/14/2015 0:00	6.8						49141	6084	22	921	0.62	89000	220	269	440
SEA SNAKE 35 STATE #001H	3002541625	35	23S	33E	M	Lea	NM			BONE SPRING 2ND SAND				5/14/2015 0:00	6.9						48857	6766	26	1090	1.8	90000	183	655	440
THISTLE UNIT #053H	3002541794	28	23S	33E	B	Lea	NM			BONE SPRING 2ND SAND				5/14/2015 0:00	6.9						49335	11192	46	1560	1.3	100000	195	594	364
THISTLE UNIT #059H	3002541796	28	23S	33E	B	Lea	NM			BONE SPRING 2ND SAND				5/14/2015 0:00	6.6						59742	11512	106	1633	2.1	117000	220	363	374
THISTLE UNIT #043H	3002540898	33	23S	33E	M	Lea	NM			BONE SPRING 2ND SAND				7/16/2015 0:00	7		155146.4	0.041			51155.5	7420	35.9	868.5	1.25	94478.7	183	600	900
THISTLE UNIT #046H	3002541118	33	23S	33E	N	Lea	NM			BONE SPRING 2ND SAND				7/16/2015 0:00	7		166100.9	0.039			55345.3	7538	8.9	884.9	1.68	101077.2	244	635	500
THISTLE UNIT #048H	3002541253	34	23S	33E	N	Lea	NM			BONE SPRING 2ND SAND				7/16/2015 0:00	6.7		162709.3	0.039			53857.8	7649	29.6	877.2	1.03	98977.7	244	675	300
THISTLE UNIT #050H	3002541302	34	23S	33E	P	Lea	NM			BONE SPRING 2ND SAND				7/16/2015 0:00	6.88		146169.4	0.044			47938.1	7126	53.7	824.4	1.43	88480	488	880	500
THISTLE UNIT #056H	3002541303	33	23S	33E	P	Lea	NM			BONE SPRING 2ND SAND				7/16/2015 0:00	6.73		159590.4	0.04			52593.6	7634	38.6	905.6	1.28	97178.1	183	635	450
SEA SNAKE 35 STATE #001H	3002541625	35	23S	33E	M	Lea	NM			BONE SPRING 2ND SAND				7/16/2015 0:00	7		146173.6	0.044			48514.2	6777	38.9	763.1	1.51	88880	207.4	635	60
SEA SNAKE 35 STATE #003H	3002542283	35	23S	33E	O	Lea	NM			BONE SPRING 2ND SAND				7/23/2015 0:00	7		118969.6	0.054			39811	5202	26.1	612.4	1.05	71983.8	231.8	820	40
THISTLE UNIT #018H	3002540010	28	23S	33E	C	Lea	NM			DELAWARE-BRUSHY CANYON				9/9/2015 0:00	6.5		182009	0.035			56667.9	11090	47.3	1461	2	111474.9	61	600	260
THISTLE UNIT #020H	3002540015	27	23S	33E	D	Lea	NM			DELAWARE-BRUSHY CANYON				9/9/2015 0:00	6.5		167967.8	0.038			53995.6	9118	40.6	1014	1.19	102676.8	73.2	425	200
TAIPAN 10 STATE COM #001H	3002540743	15	23S	33E	D	Lea	NM			BONE SPRING 2ND SAND				9/9/2015 0:00	6.5		183673.6	0.035			59642.2	9492	48.1	1067	1.08	111974.8	61	765	230
THISTLE UNIT #056H	3002541340	22	23S	33E	O	Lea	NM			BONE SPRING 2ND SAND				9/9/2015 0:00	5.43		135196.2	0.047			43673.3	7109	54.7	790.2	1.15	81881.5	500.2	765	600
THISTLE UNIT #057H	3002541341	22	23S	33E	O	Lea	NM			BONE SPRING 2ND SAND				9/9/2015 0:00	7		130630.5	0.049			47917.4	2149	12.9	341.3	0.3	78382.3	561	710	210
THISTLE UNIT #058H	3002541342	22	23S	33E	O	Lea	NM			BONE SPRING 2ND SAND				9/9/2015 0:00	5.63		172311.7	0.037			54111.1	10120	45.1	1126	1.24	105276.3	305	425	550
THISTLE UNIT #062H	3002541466	22	23S	33E	O	Lea	NM			BONE SPRING 2ND SAND				9/9/2015 0:00	7.54		106744.9	0.06			32885.4	5523	0.8	1747	0.1	64285.5	976	1205	600
THISTLE UNIT #063H	3002541467	22	23S	33E	O	Lea	NM			BONE SPRING 2ND SAND				9/9/2015 0:00	5.62		164203.7	0.039			53030.1	8746	37.1	968.7	1.11	100077.4	193	635	670
THISTLE UNIT #064H	3002541468	22	23S	33E	O	Lea	NM			BONE SPRING 2ND SAND				9/9/2015 0:00	5.03		184017	0.035			59935.2	9356	57.2	1065	1.28	111874.8	256.2	940	810
THISTLE UNIT #061H	3002541487	22	23S	33E	M	Lea	NM			BONE SPRING 2ND SAND				9/9/2015 0:00	4.63		236468.1	0.027			65180.9	19100	44.5	4014	3.95	146666.9	75.2	425	640
THISTLE UNIT #055H	3002541488	22	23S	33E	M	Lea	NM			BONE SPRING 2ND SAND				9/9/2015 0:00	5.72		217107.3	0.029			62587.2	15640	25.7	3227	3.22	133869.8	256.2	635	1100
THISTLE UNIT #059H	3002541796	28	23S	33E	B	Lea	NM			BONE SPRING 2ND SAND				9/9/2015 0:00	5.1		140110.6	0.046			47035.8	5996	30.2	763	1.97	84880.9	499.2	740	780
THISTLE UNIT #051H	3002541896	28	23S	33E	D	Lea	NM			BONE SPRING 2ND SAND				9/9/2015 0:00	5.16		101658.2	0.063			34198.8	4245	13.2	578.6	0.57	61286.2	158.6	1030	170
THISTLE UNIT #052H	3002541897	28	23S	33E	C	Lea	NM			BONE SPRING 2ND SAND				9/9/2015 0:00	6.5		161549.2	0.04			51767.5	8900	56.2	1004	1.25	98777.7	73.2	425	250
HORNED VIPER 20 FEDERAL COM #001H	3002541913	20	23S	33E	N	Lea	NM			BONE SPRING 2ND SAND				9/9/2015 0:00	7		130154.4	0.049			49951.8	721	11.4	140	0.1	78282.4	158.6	740	210
HORNED VIPER 20 FEDERAL COM #002H	3002541914	20	23S	33E	M	Lea	NM			BONE SPRING 2ND SAND				9/9/2015 0:00	6.1		272936.3	0.023			76649.8	21050	34.8	4456	4.19	169061.9	40	600	300
THISTLE UNIT #071H	3002542425	27	23S	33E	A	Lea	NM			BONE SPRING 1ST SAND				9/9/2015 0:00	5.6		171476.3	0.037			55363.2	9140	40.4	1023	1.1	104576.4	244	560	770
THISTLE UNIT #026H	3002542431	22	23S	33E	M	Lea	NM			DELAWARE-BRUSHY CANYON				9/9/2015 0:00	5.04		133984.6	0.048			45518.8	5227	38.2	672.7	0.72	80481.9	972.2	880	240
MARSHALL #001	3002508358	19	23S	33E	M	LEA	NM		CRUZ	DELAWARE						238931										127	156		
THISTLE UNIT #017H	3002539893	33	23S	33E	O	Lea	NM			DELAWARE-BRUSHY CANYON				11/18															

Table 4 - Chemistry of Produced Water from Formations

wellname	api	section	township	range	unit	county	state	field	formation	depth	samplesource	sampledate	ph	specificgravity	specificgravity_temp_F	tds_mgL	resistivity_ohm_cm	resistivity_ohm_cm_temp_F	conductivity	conductivity_temp_F	sodium_mgL	calcium_mgL	magnesium_mgL	chloride_mgL	bicarbonate_mgL	sulfate_mgL
MCKITTRICK FED #1	3001500135	25	22S	25E	G	EDDY	NM		DEVONIAN		DST					16200							8762	290	1175	
MCKITTRICK FED #1	3001500135	25	22S	25E	G	EDDY	NM		DEVONIAN		DST					17510							9389	664	982	
CARNERO PEAK UT #001	3001510053	31	22S	25E	A	EDDY	NM		DEVONIAN		DST					14601							7236	515	1487	
CARNERO PEAK UT #001	3001510053	31	22S	25E	A	EDDY	NM		DEVONIAN		DST					15780							8126	336	1467	
CARNERO PEAK UT #001	3001510053	31	22S	25E	A	EDDY	NM		DEVONIAN		DST					15580							7853	487	1488	
BANDANA POINT UT #001	3001500044	13	23S	23E	O	EDDY	NM	BANDANA POINT	DEVONIAN		DST					15500							8020	500	1190	
TORTOISE ASB COM #001	3001510490	29	23S	24E	G	EDDY	NM		DEVONIAN		DST					17861							7760	490	3100	
TORTOISE ASB COM #001	3001510490	29	23S	24E	G	EDDY	NM		DEVONIAN		DST					15601							7780	476	1600	
REMUDA BASIN UNIT #001	3001503691	24	23S	29E	J	EDDY	NM	REMUDA	DEVONIAN		SWAB					64582							37500	610	1700	
REMUDA BASIN UNIT #001	3001503691	24	23S	29E	J	EDDY	NM	REMUDA	DEVONIAN		SWAB					56922							29000	1740	4980	
BELL LAKE UNIT #006	3002508483	6	23S	34E	O	LEA	NM	BELL LAKE NORTH	DEVONIAN		HEATER TREATER		7			71078							42200	500	1000	
ANTELOPE RIDGE UNIT #003	3002521082	34	23S	34E	K	LEA	NM	ANTELOPE RIDGE	DEVONIAN		UNKNOWN	14/11/1967 0:00	6,9			80187							47900	476	900	
ANTELOPE RIDGE UNIT #003	3002521082	34	23S	34E	K	LEA	NM	ANTELOPE RIDGE	DEVONIAN		UNKNOWN	14/11/1967 0:00	6,9			80187							47900	476	900	
CLINE FEDERAL #001	3002510717	14	23S	37E	K	LEA	NM	CLINE	DEVONIAN		PRODUCTION TEST					118979							71280	462	2593	
E C HILL B FEDERAL #001	3002510945	34	23S	37E	A	LEA	NM	TEAGUE	DEVONIAN		UNKNOWN					112959							67390	288	2765	
E C HILL D FEDERAL #001	3002510947	34	23S	37E	H	LEA	NM	TEAGUE	DEVONIAN		UNKNOWN					35639										
E C HILL D FEDERAL #004	3002510950	34	23S	37E	A	LEA	NM	TEAGUE	DEVONIAN		UNKNOWN					236252							147000	129	781	
HUAPACHE #003	3001500020	22	24S	22E	F	EDDY	NM		DEVONIAN		DST					3110							48	246	2020	
JURNEGAN POINT #001	3001510280	5	24S	25E	M	EDDY	NM	WILDCAT	DEVONIAN		DST	14/12/1964 0:00	7			229706							136964	198	2511	
JURNEGAN POINT #001	3001510280	5	24S	25E	M	EDDY	NM	WILDCAT	DEVONIAN		DST	14/12/1964 0:00	7			203100							121100	175	2220	
WHITE CITY PENN GAS COM UNIT 1 #001	3001500408	29	24S	26E	A	EDDY	NM		DEVONIAN		DST	01/03/1960 0:00	7	1,012	60		0,36	75	25596	64	6072	1002	132	10120	653	1336
STATE B COM #001	3002509716	36	24S	36E	C	LEA	NM	CUSTER	DEVONIAN		UNKNOWN					176234							107400	128	1004	
ELLIOTT H FEDERAL #001	3002512272	31	24S	38E	H	LEA	NM	DOLLARHIDE	DEVONIAN		WELLHEAD					58687										
ELLIOTT H FEDERAL #001	3002512272	31	24S	38E	H	LEA	NM	DOLLARHIDE	DEVONIAN		WELLHEAD					57018										
WEST DOLLARHIDE DEVONIAN UNIT #104	3002512297	32	24S	38E	I	LEA	NM	DOLLARHIDE	DEVONIAN		WELLHEAD					50858							30200	183	980	
WESTATES FEDERAL #004	3002511389	1	25S	37E	E	LEA	NM	JUSTIS NORTH	FUSSELMAN		DST	17/06/1961 0:00	6			80880							46200	340	3050	
WESTATES FEDERAL #004	3002511389	1	25S	37E	E	LEA	NM	JUSTIS NORTH	FUSSELMAN		DST					84900							48600	840	2650	
WESTATES FEDERAL #004	3002511389	1	25S	37E	E	LEA	NM	JUSTIS NORTH	FUSSELMAN		DST					72200							41000	370	2960	
WESTATES FEDERAL #004	3002511389	1	25S	37E	E	LEA	NM	JUSTIS NORTH	FUSSELMAN		DST					80900							46200	340	3050	
WESTATES FEDERAL #004	3002511389	1	25S	37E	E	LEA	NM	JUSTIS NORTH	FUSSELMAN		DST					77600							44000	550	3240	
WESTATES FEDERAL #004	3002511389	1	25S	37E	E	LEA	NM	JUSTIS NORTH	FUSSELMAN		DST					135000							77000	650	5810	
WESTATES FEDERAL #004	3002511389	1	25S	37E	E	LEA	NM	JUSTIS NORTH	FUSSELMAN		DST					114000							65000	280	5110	
WESTATES FEDERAL #004	3002511389	1	25S	37E	E	LEA	NM	JUSTIS NORTH	FUSSELMAN		DST					135000							77000	500	5320	
WESTATES FEDERAL #008	3002511393	1	25S	37E	E	LEA	NM	JUSTIS NORTH	FUSSELMAN		UNKNOWN					91058							51020	376	4783	
WESTATES FEDERAL #008	3002511393	1	25S	37E	E	LEA	NM	JUSTIS NORTH	FUSSELMAN		UNKNOWN					86847							50450	363	2544	
STATE NJ A #001	3002511398	2	25S	37E	A	LEA	NM	JUSTIS NORTH	DEVONIAN		DST					105350							59300	660	4950	
NEW MEXICO BM STATE #002	3002511407	2	25S	37E	I	LEA	NM	JUSTIS NORTH	MONTOYA		UNKNOWN					77770							45500	1800	2400	
HALE STATE #003	3002512581	2	25S	37E	H	LEA	NM	JUSTIS NORTH	MONTOYA		WELLHEAD					64916							37000	813	2500	
SOUTH JUSTIS UNIT #016F	3002511556	13	25S	37E	F	LEA	NM	JUSTIS	FUSSELMAN		UNKNOWN					57675							34030	595	1211	
LEARCY MCBUFFINGTON #008	3002511569	13	25S	37E	N	LEA	NM	203MNTY, 259FSLM	FUSSELMAN	7052		02/01/1900 0:00	7,6	1,037	78	67909			81429	67		2603	684	38887	742	2489
LEARCY MCBUFFINGTON #008	3002511569	13	25S	37E	N	LEA	NM	JUSTIS	MONTOYA		UNKNOWN					67898							38880	742	2489	
A B COATES C FEDERAL #014	3002511736	24	25S	37E	G	LEA	NM	JUSTIS	MONTOYA		UNKNOWN					39261							22840	871	1030	
SOUTH JUSTIS UNIT #023C	3002511760	25	25S	37E	C	LEA	NM	JUSTIS	FUSSELMAN		SEPARATOR					63817							35870	360	3442	
CARLSON A #002	3002511764	25	25S	37E	I	LEA	NM	JUSTIS	FUSSELMAN		DST					208280							124000	510	3400	
STATE Y #009	3002511777	25	25S	37E	A	LEA	NM	JUSTIS	FUSSELMAN		DST	17/03/1961 0:00	7,3			219570							129000	960	4630	
STATE Y #009	3002511777	25	25S	37E	A	LEA	NM	JUSTIS	FUSSELMAN		DST	18/03/1961 0:00	6,8			163430							96000	290	3780	
CARLSON B 25 #004	3002511784	25	25S	37E	P	LEA	NM	JUSTIS	FUSSELMAN		SEPARATOR					184030							112900	68	1806	
COPPER #001	3002511818	28	25S	37E	J	LEA	NM	CROSBY	DEVONIAN		UNKNOWN					27506							15270	1089	1079	
ARNOTT RAMSAY NCT-B #003	3002511863	32	25S	37E	A	LEA	NM	CROSBY	DEVONIAN	8797		02/01/1900 0:00		1,142	70							17244	5345	100382	476	
ARNOTT RAMSAY NCT-B #003	3002511863	32	25S	37E	A	LEA	NM	CROSBY	DEVONIAN		UNKNOWN					158761										
WEST DOLLARHIDE DEVONIAN UNIT #110	3002512386	5	25S	38E	B	LEA	NM	DOLLARHIDE	DEVONIAN		UNKNOWN					56776										
FARNSWORTH FEDERAL #006	3002511950	4	26S	37E	A	LEA	NM	CROSBY	DEVONIAN		UNKNOWN					31931							20450	302	591	

OSE Well Logs – NO WATER SUPPLY WELLS

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Since 1996
Artesia ▲ Carlsbad ▲ Durango ▲ Midland

July 22, 2019

Hobbs News Sun
201 N. Thorp
P.O. Box 850
Hobbs, N.M. 88240

LEGAL NOTICE

AWR Disposal LLC, 3300 N. A Street, Ste. 220, Midland, TX 79705 filed Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Rodman State SWD #1 will be located 206 feet from the South line and 790 feet from the West line, Section 6, Township 23 South, Range 33 East, Lea County, New Mexico. Produced water from area production will be commercially disposed into the Silurian, Fusselman and Montoya Formations at a depth of 16,660 feet to 18,391 feet at a maximum surface pressure of 3,000 psi and an average injection rate of 30,000 barrels per day. The proposed SWD well is located approximately 37 miles east of Loving, New Mexico.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 S. St. Francis Dr., Santa Fe, NM 87505 (505) 476-3460 within 15 days of the date of this notice.

Additional information can be obtained by contacting Mr. Randall Hicks, agent for Accelerated Water Resources, LP, at 505-238-9515.

Sincerely,
R.T. Hicks Consultants



Randall Hicks
Principal

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
July 23, 2019
and ending with the issue dated
July 23, 2019.



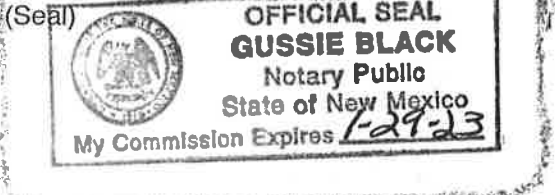
Publisher

Sworn and subscribed to before me this
23rd day of July 2019.



Business Manager

My commission expires
January 29, 2023



This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

LEGALS

LEGAL NOTICE JULY 23, 2019

AWR Disposal LLC, 3300 N. A Street, Ste. 220, Midland, TX 79705 filed Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Rodman State SWD #1 will be located 206 feet from the South line and 790 feet from the West line, Section 6, Township 23 South, Range 33 East, Lea County, New Mexico. Produced water from area production will be commercially disposed into the Silurian, Fusselman and Montoya Formations at a depth of 16,660 feet to 18,391 feet at a maximum surface pressure of 3,000 psi and an average injection rate of 30,000 barrels per day. The proposed SWD well is located approximately 37 miles east of Loving, New Mexico.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 S. St. Francis Dr., Santa Fe, NM 87505 (505) 476-3460 within 15 days of the date of this notice.

Additional information can be obtained by contacting Mr. Randall Hicks, agent for Accelerated Water Resources, LP, at 505-238-9515.

Sincerely,
R.T. Hicks Consultants
Randall Hicks
Principal
#34479

67115764

00231123

RANDALL HICKS
R.T. HICKS CONSULTANTS, LTD
901 RIO GRANDE BLVD NM
SUITE F-142
ALBUQUERQUE, NM 87104

R. T. HICKS CONSULTANTS, LTD.

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July 22, 2019

NOTIFICATION TO INTERESTED PARTIES

Via U.S. Certified Mail – Return Receipt Requested

To Whom It May Concern:

AWR Disposal LLC, Midland, Texas, has made application to the New Mexico Oil Conservation Division to drill and complete, for salt water disposal, the Rodman State SWD #1. The proposed commercial operation will be for produced water disposal from area operators. As indicated in the notice below, the well is located in Section 6, Township 23 South, Range 33 East, Lea County, New Mexico.

The published notice states that the interval will be from 16,660 feet to 18,391 feet into the Silurian, Fusselman and Montoya Formations.

LEGAL NOTICE

AWR Disposal LLC, 3300 N. A Street, Ste. 220, Midland, TX 79705 filed Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Rodman State SWD #1 will be located 206 feet from the South line and 790 feet from the West line, Section 6, Township 23 South, Range 33 East, Lea County, New Mexico. Produced water from area production will be commercially disposed into the Silurian, Fusselman and Montoya Formations at a depth of 16,660 feet to 18,391 feet at a maximum surface pressure of 3,000 psi and an average injection rate of 30,000 barrels per day. The proposed SWD well is located approximately 37 miles east of Loving, New Mexico.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 S. St. Francis Dr., Santa Fe, NM 87505 (505) 476-3460 within 15 days of the date of this notice.

You have been identified as a party who may be interested as an offset lessee or operator. **IF YOU WOULD LIKE AN ELECTRONIC COPY OF THE ENTIRE PERMIT PACKAGE, PLEASE SEND YOUR REQUEST TO r@rthicksconsult.com** (request a read receipt to avoid your email becoming stuck in spam).

Thank you for your attention in this matter.

Sincerely,
R.T. Hicks Consultants



Randall Hicks
Principal

OPERATORS, LEASEHOLDERS AND SURFACE OWNERS WITHIN 2 MILES -RADIUS

DATA EXTRACTED FROM TABLES 1, 2A, 2B AND 2C

ADAMS OIL & GAS PRODUCERS Rodman State SWD #1 PO BOX 433 WINK, TX BAD ADDR Bad address	Bureau of Land Management Rodman State SWD #1 620 E. Greene Street Carlsbad, NM 88220-6292	BURLINGTON RESOURCES OIL & GAS CO Rodman State SWD #1 PO BOX 51810 MIDLAND, TX 79710
CHEVRON USA INC Rodman State SWD #1 AS WARREN PETROLEUM COMPANY P O BOX 1589 TULSA, OK 74102 Bad address	CIMAREX ENERGY CO Rodman State SWD #1 1700 LINCOLN STREET SUITE 3700 DENVER, CO 802034518	CIMAREX ENERGY CO. Rodman State SWD #1 600 N. Marienfeld Street Suite 600 Midland, TX 79701
COG OPERATING LLC Rodman State SWD #1 1048 Paseo De Peralta Santa Fe, NM 87501	CONOCOPHILLIPS COMPANY Rodman State SWD #1 P. O. BOX 7500 BARTLESVILLE, OK 74005	Delaware Water Mngt. Company Rodman State SWD #1 5400 LBJ Freeway Ste. 1500 Dallas, TX 75240
ENDURANCE RESOURCES LLC Rodman State SWD #1 15455 DALLAS PARKWAY SUITE 1050 ADDISON, TX 75001	EOG RESOURCES INC Rodman State SWD #1 P.O. Box 2267 Midland, TX 79702	EOG Y RESOURCES, INC. Rodman State SWD #1 104 S 4TH ST ARTESIA, NM 88210
LIME ROCK RESOURCES A, L.P. Rodman State SWD #1 1111 BAGBY STREET SUITE 4600 HOUSTON, TX 77002	MARATHON OIL PERMIAN LLC Rodman State SWD #1 5555 SAN FELIPE STREET HOUSTON, TX 77056	New Mexico State Land Office Rodman State SWD #1 310 Old Santa Fe Trail Santa Fe, NM 87501
OXY USA INC Rodman State SWD #1 PO BOX 4294 HOUSTON, TX 77210	OXY USA INC. Rodman State SWD #1 5 GREENWAY PLAZA, SUITE 110 HOUSTON, TX 77046	POGO PRODUCING CO Rodman State SWD #1 PO BOX 10340 MIDLAND, TX 797027340
STRATA PRODUCTION CO Rodman State SWD #1 PO DRAWER 1030 ROSWELL, NM 88202		

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Postage \$0.55

Total Postage and Fees \$6.85

Sent To Bureau of Land Management

Rodman State SWD #1

PO BOX 433

Street and Apt. No., or PO Box No. WINK, TX 79789

City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047

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Sent To Bureau of Land Management

Rodman State SWD #1

620 E. Greene Street

Street and Apt. No., or PO Box No. Carlsbad, NM 88220-6292

City, State, ZIP+4®

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Postage \$0.55

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Sent To CHEVRON USA INC

Rodman State SWD #1

PO BOX 51810

Street and Apt. No., or PO Box No. MIDLAND, TX 79710

City, State, ZIP+4®

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☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.55

Total Postage and Fees \$6.85

Sent To CHEVRON USA INC

Rodman State SWD #1

AS WARREN PETROLEUM COMPANY

P O BOX 1589

Street and Apt. No., or PO Box No. TULSA, OK 74102

City, State, ZIP+4®

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Postage \$0.55

Total Postage and Fees \$6.85

Sent To CIMAREX ENERGY

Rodman State SWD #1

1700 LINCOLN STREET

Street and Apt. No., or PO Box No. SUITE 3700

City, State, ZIP+4® DENVER, CO 80203-4518

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Postage \$0.55

Total Postage and Fees \$6.85

Sent To CIMAREX ENERGY

Rodman State SWD #1

600 N. Marlenfeld Street

Street and Apt. No., or PO Box No. Suite 600

City, State, ZIP+4® Midland, TX 79701

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☐ Adult Signature Required \$0.00
☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.55

Total Postage and Fees \$6.85
COG OPERATING LLC
Rodman State SWD #1

Sent To 1048 Paseo De Peralta
Street and Apt. No., or PO Box No. Santa Fe, NM 87501
City, State, ZIP+4®

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Postage \$0.55

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CONOCOPHILLIPS COMPANY
Rodman State SWD #1

Sent To P. O. BOX 7500
Street and Apt. No., or PO Box No. BARTLESVILLE, OK 74005
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Postage \$0.55

Total Postage and Fees \$6.85
Delaware Water Mngt. Company
Rodman State SWD #1

Sent To 5400 LBJ Freeway
Street and Apt. No., or PO Box No. Ste. 1500
City, State, ZIP+4® Dallas, TX 75240

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Postage \$0.55

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DURANCE RESOURCES LLC
Rodman State SWD #1

Sent To 15455 DALLAS PARKWAY
Street and Apt. No., or PO Box No. SUITE 1050
City, State, ZIP+4® ADDISON, TX 75001

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Postage \$0.55

Total Postage and Fees \$6.85
EOG RESOURCES
Rodman State SWD #1

Sent To P.O. Box 2267
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City, State, ZIP+4®

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Rodman State SWD #1

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Postage \$0.55
\$

Total Postage and Fees \$6.85
\$

Sent To Rodman State SWD #1

Street and Apt. No., or PO Box No. 1111 BAGBY STREET

SUITE 4600

City, State, ZIP+4® HOUSTON, TX 77002

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Postage \$0.55
\$

Total Postage and Fees \$6.85
\$

Sent To Rodman State SWD #1

Street and Apt. No., or PO Box No. 5555 SAN FELIPE STREET

HOUSTON, TX 77056

City, State, ZIP+4®

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SANTA FE, NM 87501

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☐ Adult Signature Required \$0.00
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Postage \$0.55
\$

Total Postage and Fees \$6.85
\$

Sent To Rodman State SWD #1

Street and Apt. No., or PO Box No. 310 Old Santa Fe Trail

Santa Fe, NM 87501

City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047

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HOUSTON, TX 77210

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☐ Adult Signature Required \$0.00
☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.55
\$

Total Postage and Fees \$6.85
\$

Sent To Rodman State SWD #1

Street and Apt. No., or PO Box No. PO BOX 4294

HOUSTON, TX 77210

City, State, ZIP+4®

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☐ Certified Mail Restricted Delivery \$0.00
☐ Adult Signature Required \$0.00
☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.55
\$

Total Postage and Fees \$6.85
\$

Sent To Rodman State SWD #1

Street and Apt. No., or PO Box No. 5 GREENWAY PLAZA, SUITE 110

HOUSTON, TX 77046

City, State, ZIP+4®

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☐ Adult Signature Required \$0.00
☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.55
\$

Total Postage and Fees \$6.85
\$

Sent To Rodman State SWD #1

Street and Apt. No., or PO Box No. PO BOX 10340

MIDLAND, TX 79702/340

City, State, ZIP+4®

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☐ Return Receipt (electronic) \$0.00
☐ Certified Mail Restricted Delivery \$0.00
☐ Adult Signature Required \$0.00
☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.55

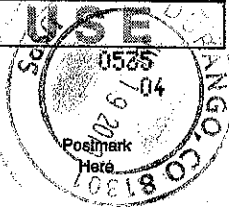
Total Postage and Fees \$6.85

Sent To Rodman State SWD #1

PO DRAWER 1030

Street and Apt. No., or PO Box No. ROSWELL, NM 88202

City, State, ZIP+4®



7019 1120 0001 9199 7032

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Artesia ▲ Carlsbad ▲ Durango ▲ Midland

July 31, 2019

Mr. Phillip Goetze, P.G.
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: AWR Disposal LLC Rodman State SWD#1
UL M, Section 6 T23S R33E, Lea County

Dear Mr. Goetze:

On behalf of AWR Disposal LLC, R.T. Hicks Consultants is providing data and an opinion regarding the probability that injection of wastewater in the above referenced well at the proposed rates will cause seismic events of sufficient magnitude to create damage. It is our understanding that OCD is interested in such an opinion as part of the SWD approval process. We elected to provide this opinion as a separate submission as the C-108 does not specifically require such an opinion.

We relied upon the following data to develop our opinion

- State of stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity, Jens-Erik Lund Snee and Mark D. Zoback, The Leading Edge, February 2018¹
- Plate 5, which is reproduced from the Snee and Zoback publication, which uses the following references
 - Crone, A. J., and R. L. Wheeler, 2000, Data for Quaternary faults, liquefaction features, and possible tectonic features in the Central and Eastern United States, east of the Rocky Mountain front; U.S. Geological Survey Open-File Report.
 - Ewing, T. E., R. T. Budnik, J. T. Ames, and D. M. Ridner, 1990, Tectonic map of Texas: Bureau of Economic Geology, University of Texas at Austin.
 - Green, G. N., and G. E. Jones, 1997, e digital geologic map of New Mexico in ARC/INFO format: U.S. Geological Survey Open-File Report.
 - Ruppel, S. C., R. H. Jones, C. L. Breton, and J. A. Kane, 2005, Preparation of maps depicting geothermal gradient and Precambrian structure in the Permian Basin: USGS Order no. 04CRSA0834 and Requisition no. 04CRPR01474.
 - NMOCD database of oil and gas wells
- Plate 5, which shows the distribution of active and new SWD wells in the area of the proposed AWR Disposal SWD well
- Stratigraphic and lithologic information from two deep wells in the Delaware Basin
- Data on the thickness and lithology of the Simpson Group from the Texas Bureau of Economic Geology²

¹ https://scits.stanford.edu/sites/default/files/3702_tss_lundsnee_v2.pdf

² http://www.beg.utexas.edu/resprog/permianbasin/PBGSP_members/writ_synth/Simpson.pdf

Plate 5 reproduces Figure 3 of the 2018 publication of Snee and Zoback and shows

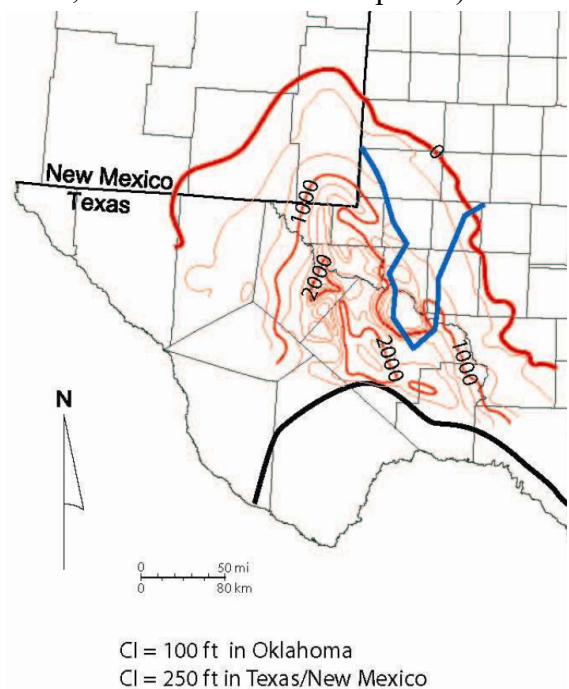
1. Fault traces based upon the references provided above for which Dr. Snee and Dr. Zoback provide a value of the fault slip potential (FSP)
2. Areas of documented seismic activity, and a magnitude 2.0-2.9 earthquake that occurred between 1970-2004 about 12 miles south of the proposed Rodman State SWD #1. A Since 2005 seismic event of magnitude 3.0-3.9 was reported about 15 miles west of the Rodman State SWD #1 well location.
3. Although Plate 5 does not show faults that may be identified in confidential seismic data owned by oil and gas operators, the closest mapped basement fault that was re-activated during Woodford time is about 5.5 miles to the east) exhibits a low FSP (less than 5%) based upon the modeling and analysis of Snee and Zoback referenced above
4. Other mapped faults in southern Lea County shown on Plate 5 also show a low FSP, except for part of southwest-northeast trending fault about 17 miles north-northwest of the Rodman SWD #1 well that has a FSP of about 25 – 33% in the central portion of this fault trace.

Plate 6 reproduces the major elements of Plate 5 in the inset map and also shows that within an 6-mile radius around the proposed Rodman State SWD #1, in the four townships surrounding the location (22S 32E, 22S 33E, 23S 32E and 23S 33E), the OCD database shows about 2 active and 5 new Devonian SWDs, which translates into an average density of about one SWD for every 16 square miles.

Figure 4 from the referenced Bureau of Economic Geology (The Middle-Upper Ordovician Simpson Group of the Permian Basin: Deposition, Diagenesis, And Reservoir Development) is attached to this letter and the portion of that figure for the Delaware Basin is shown to the right. In southern Lea County the mapped thickness appears to be 500-1500 feet thick (note one contour line appears to be missing on the map). This unit, which is clay-rich carbonate interbedded with shale and sandstone, provides an excellent permeability/pressure barrier between the injection zone and the basement faults that were re-activated during Woodford time.

Data from the Amoco Federal CW Com 1 (3002528119) show that the thickness of the Simpson in the Antelope Ridge area of Lea County (Section 3 24S 34E) is about 450 feet thick with. This is consistent with Figure 4 of the BEG paper (probably because this well was used to produce the isopach map).

We contend that the data permit conclusion that unmapped faults (which may be located by confidential seismic data that AWR Disposal does not possess) near the Rodman State SWD #1



July 31, 2019

Page 3

would be dominantly north-south normal faults, as is common in Lea County. The data on Plate 6 permit a conclusion that faults near the Rodman State SWD #1 are also most likely to exhibit a low FSP, like the mapped faults shown on Plate 5.

Given the density of Devonian SWDs (planned/new and active) near the proposed Rodman State SWD #1 well and the high likelihood that any unmapped faults in the area would exhibit a low FSP, the probability that injection into the Rodman State SWD #1 would cause an increase in pore pressure to trigger a seismic event of sufficient magnitude to cause damage is very low.

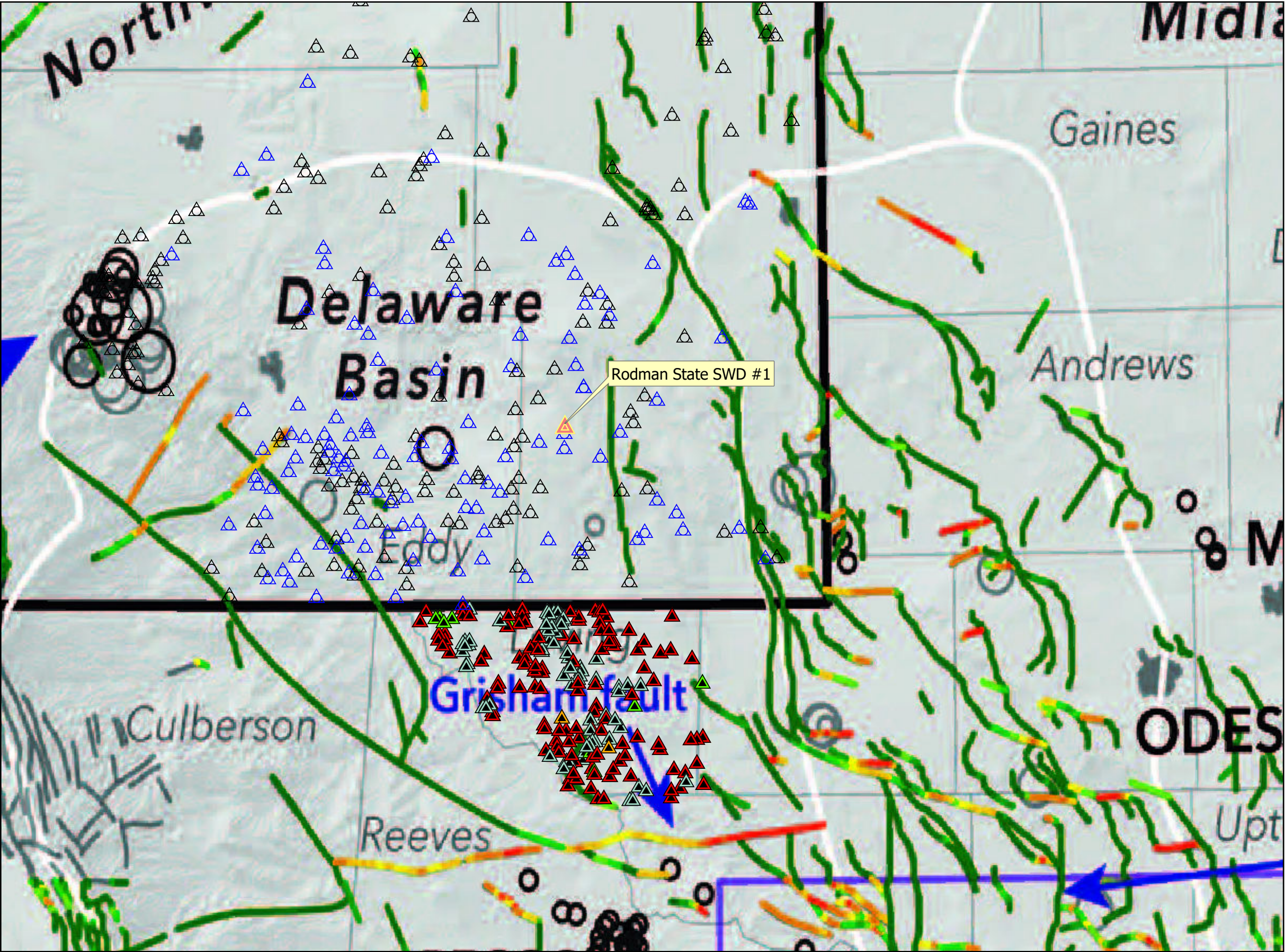
The users of this letter should recognize the uncertainties of using seismic maps of the Permian Basin to determine probability that injection of wastewater into a single SWD well could cause seismic events of sufficient magnitude to cause damage. However, on a regional basis injection by numerous wells into the Devonian/Fusselman/Montoya interval will raise the hydrostatic pressure. If pressure increases sufficiently, fluid could migrate from the injection zone along fault planes, up and down. Downward fluid migration will be intercepted first by the sandstone units of the Simpson Group. After fluid pressure increases in these sandstones, fluid would migrate downward into the Ellenberger Formation, which lies beneath the Simpson Group. This downward migration will next enter the permeable units of the Ellenberger and, over time, increase the fluid pressure. After fluid pressure in the Ellenberger is sufficiently large to cause downward migration along fault planes or other conduits, the migrating fluid will, in some areas, enter a thinner horizon of granite wash. Downward migrating fluids from the injection zone could then enter basement fault planes if the pressure in the granite wash horizon is sufficient, and reduce the frictional resistance (lubricate the faults). Reduction in the frictional force in faults due to fluid invasion can and has caused seismic events. In my opinion, the probability that injection into the Rodman State SWD will measurably contribute to the events described above and will cause a seismic event resulting in damage is so low as to be nil.

Sincerely,
R.T. Hicks Consultants

A handwritten signature in black ink, appearing to read "Randall T. Hicks". The signature is stylized with a large, looped "R" and a cursive "Hicks".

Randall T. Hicks
Principal

Copy: AWR Disposal LLC

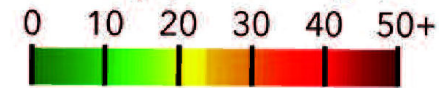


- ▲ SWD
- Oil and Gas (NMOCD)
- △ Salt Water Injection, Active
- △ Salt Water Injection, New
- Loving, Tx Oil and Gas Wells
- ▲ Injection/Disposal From Gas
- ▲ Injection/Disposal From Oil
- ▲ Injection/Disposal From Oil/Gas
- ▲ Injection/Disposal Well

Seismicity:

- M_w 2.0-2.9 ○ Since 2005
- M_w 3.0-3.9 ○ 1970-2004
- M_w 4.0+

Fault slip potential (%):



Seismic and Fault Slip Potential-
Ewing et al. (1990), Green and Jones (1997), Ruppel
et al. (2005), and the USGS Quaternary Faults and
Folds Database (Crone and Wheeler, 2000).



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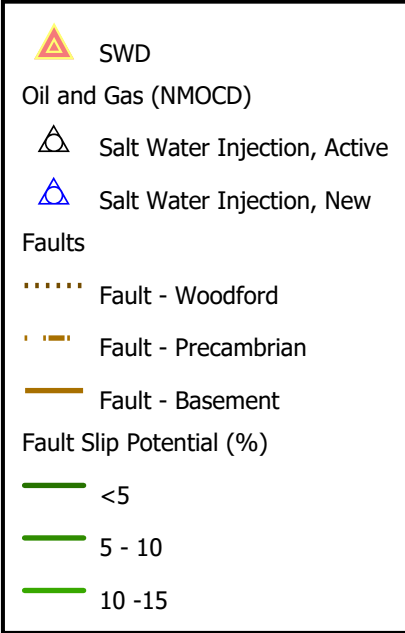
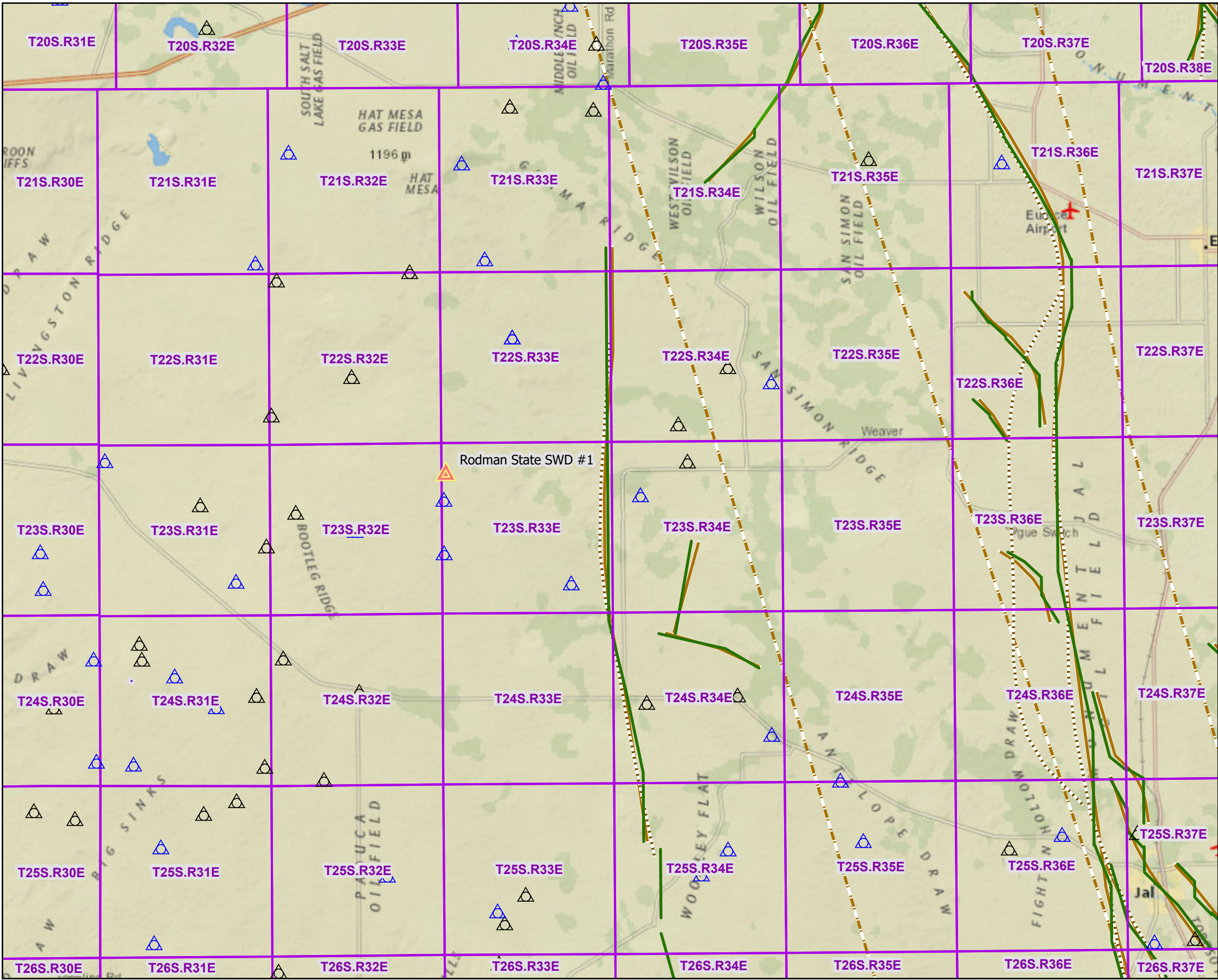
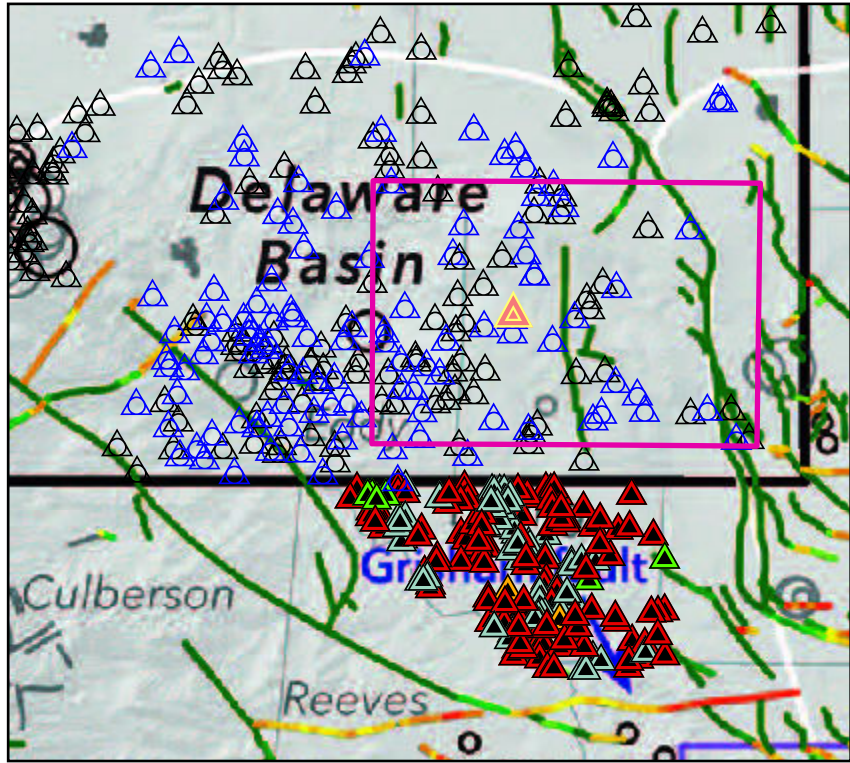
R.T. Hicks Consultants, Ltd
901 Rio Grande Blvd NW Suite F-142
Albuquerque, NM 87104
Ph: 505.266.5004

Seismicity and Fault Slip Potential

AWR Disposal, LLC
Rodman State SWD #1

Plate 5

July 2019



Seismic and Fault Slip Potential-
Ewing et al. (1990), Green and Jones (1997), Ruppel
et al. (2005), and the USGS Quaternary Faults and
Folds Database (Crone and Wheeler, 2000).



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Fault Slip Potential

AWR Disposal, LLC
Rodman State SWD #1

Plate 6

July 2019