



GEOLOGIC FORMATIONS CITY OF GALLUP AND SURROUNDING AREA COUNTY OF MCKINLEY, NEW MEXICO

REFERENCE MATERIAL:

"GEOLOGY, STRUCTURE AND URANIUM DEPOSITS OF THE GALLUP 1" x 2" QUADRANGLE, NEW MEXICO AND ARIZONA." COMPILED BY R. J. HACKMAN AND A. B. OLSEN, 1977.

"WATER-SUPPLY STUDIES AND FORTY-YEAR WATER-SUPPLY MASTER PLAN," BY JOHN W. SHOMAKER, INC., 1991.

STRATA	THICKNESS in feet	DEPTH in feet	FORMATION		
			FORMATION	FORMATION	
Qa	Alluvium Qa	0 100 200	-	100 200	QUATERNARY
Qae	Qae				TERTIARY Chinle Sandstone (not present)
Kmf	Allison Member KmFa	600 700 800	600 800 1000		Menefee Formation
Kmfc	Cleary Coal Member KmFc	250 275 300	850 1075 1300		
Keg	Gibson Coal Member Kcg	150 163 175	1000 1238 1475		
Keb	Bartlett Barren Member Kcb	330 365 400	1330 1603 1875		
Ked	Dalton Sandstone Member Kcda	180 180 180	1510 1783 2055		
Kcdc	Dilco Coal Member Kcdc	240 270 300	1750 2053 2355		
Kg	Gallup Sandstone Kg	180 353 526	1930 2406 2881		
Km	Mancos Shale Km	500 600 700	2430 3006 3581		Point Lookout Sandstone 0-300 (not present)
Kd	Dakota Sandstone Kd	100 175 250	2530 3181 3831		
Jm	Brushy Basin Member Jmb	0 98 195	2530 3279 4026		CRETACEOUS
Jmw	Westwater Canyon Member Jmw	100 160 220	2630 3439 4246		
Jmr	Recapture Shale Member Jmr	0 200 400	2630 3639 4646		
Jcs	Cow Springs Sandstone Jcs	280 353 425	2910 3992 5071		
Js	Summerville Formation Js	0 50 100	2910 4042 5171		
Jt	Todilto Limestone Jt	0 38 75	2910 4080 5246		
Je	Entrada Sandstone Je-Jsr	50 200 350	2960 4280 5596		
Jw	Wingate Sandstone Jw - Jc	75 218 360	3035 4498 5956		
Jco	Owl Rock Member Jco	880 880 880	3915 5398 6876		
Jcpa	Petrified Forest Upper Part Jcpa	0 100 200	- 5498 6836		
Jcps	Sonsela Sandstone Bed Jcps	0 100 200	- 5598 7036		
Jcmb	Monitor Butte Member Lower Part Jcmb	0 100 200	- 5698 7236		
Jcs	Shinarump Member Jcs	0 100 200	- 5798 7436		
Jm	Moenkopi Formation Jm	0 100 200	- 5898 200		JURASSIC
Jpsa	San Andreas Limestone Jpsa	0 100 200	- 5998 7836		
Jpg	Glorietta Sandstone Jpg	0 100 200	- 6098 8036		
Jpy	Yeso Formation Jpy	0 100 200	- 6198 8236		
Jpa	Abo Formation Jpa	0 100 200	- 6298 8436		
Jpcz	Pre-Cambrian Jpcz	0 100 200	- 6398 8636		TRIASSIC
Jpcz	Pre-Cambrian Jpcz	0 100 200	- 6398 8636		
Jpcz	Pre-Cambrian Jpcz	0 100 200	- 6398 8636		PERMIAN
Jpcz	Pre-Cambrian Jpcz	0 100 200	- 6398 8636		

FIGURE 4.6

REBUTTAL REPORT FOR APPLICATION NO. G-22 OVERVIEW OF GALLUP'S PRESENT GROUNDWATER SUPPLY AND EXISTING PROBLEMS.

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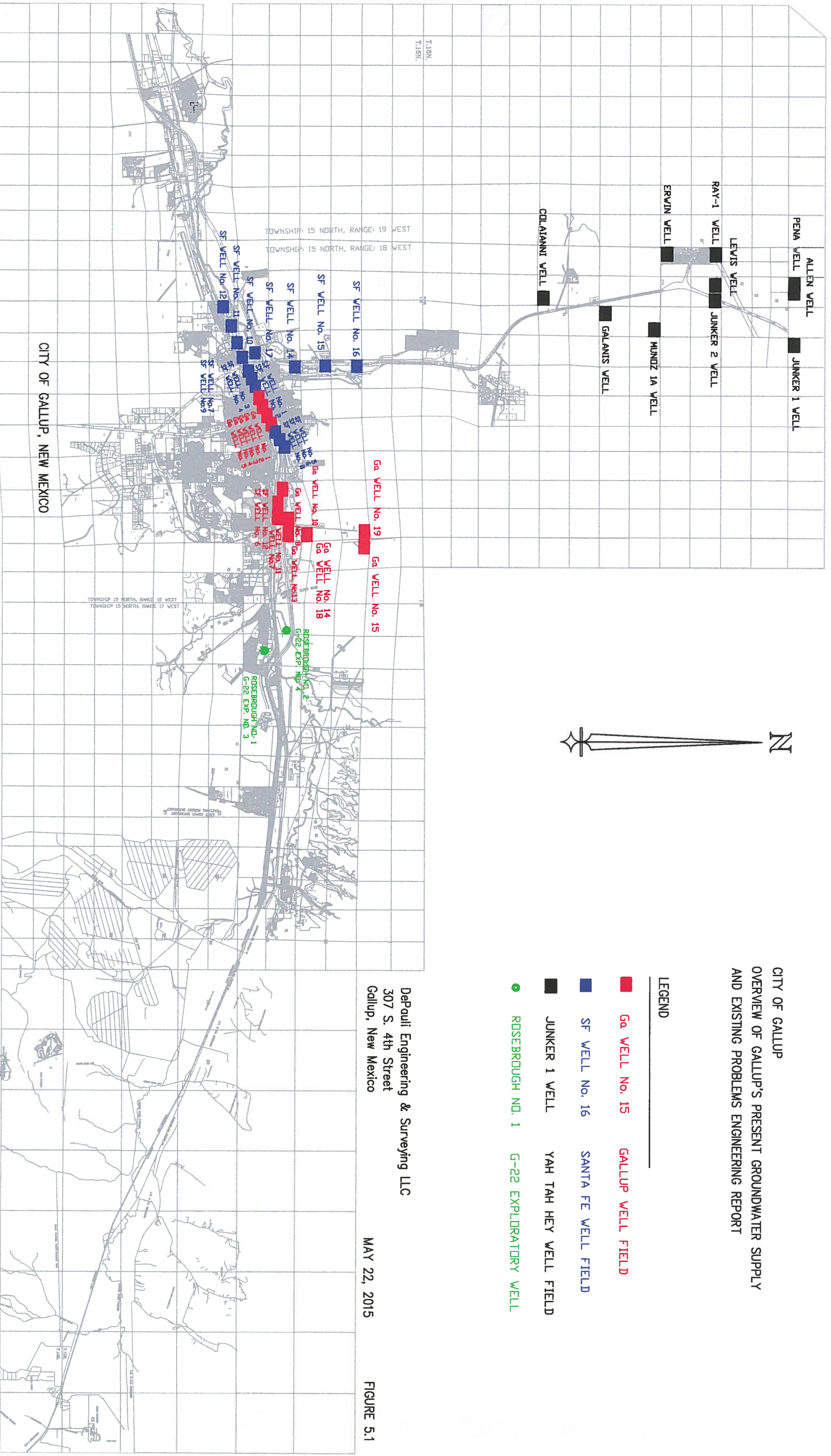


CITY OF GALLUP
 OVERVIEW OF GALLUP'S PRESENT GROUNDWATER SUPPLY
 AND EXISTING PROBLEMS ENGINEERING REPORT



LEGEND

- Ga WELL No. 15 ■ GALLUP WELL FIELD
- SF WELL No. 16 ■ SANTA FE WELL FIELD
- JUNKER 1 WELL ■ YAH TAH HEY WELL FIELD
- ROSEBROUGH NO. 1 ● G-22 EXPLORATORY WELL



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MAY 22, 2015

FIGURE 5.1