

Report Date: 2/4/2019

**Bedrock Aquifer Evaluation Determination Tool**

**Denver Basin Aquifer - Specific Location Determination Tool**

**Applicant:** PDC - 36-6N-63W

**Receipt No:**

**Evaluated By:**

**Location:** NW 1/4 of NW 1/4 of Sec. 36, T.6N, R.63W. ( 1 NSL, 1 WSL)

**Basin Designation:**

**Ground Surface Elevation:** 4809 Feet **Number of Acres:** 640

Aquifer	Elevation (ft)		Net Sand	DEPTH (ft)		ANNUAL APPROP. (A-F)	STATUS
	Bot	Top		Bot	Top		
Upper Dawson							
Lower Dawson							
Denver							
Upper Arapahoe							
Lower Arapahoe							
Laramie-Fox Hills							

**Plug and Abandon Surface Casing Check**

Operator	PDC						Depth
API or Doc #	S36-6N-63W			GR	Base L-FH		to Water
SB5 Base of Fox Hills	NA	CDWR CB	4809	4430	50		429
			GR	WW GR	Elev Diff		
Deepest Water Well Within One Mile / number of wells	500	/	18	4809	4820	50	539
Deepest Water Well Within Two Miles / number of wells		/	N				
Sussex / Shannon Production within one mile							
Operator Existing Surface Casing Depth							
Production Casing to be pulled							
Required aquifer protection depth in this well	539						

Water Wells Selected From Map  
Filter Results by Depth

500 ft  
18 wells

WELL DESCRIPTION	LOCATION	WELL INFORMATION			
		Depth	Top Perf	Bottom Perf	Aquifer
Receipt=3655493R, Permit=77012-F-- WELLS RANCH	NWNW 30 6.0 N -62.0 W	300	100	300	LARAMIE FOX HILLS
Receipt=3659083I, Permit=77139-F-- WELLS RANCH	NWNW 30 6.0 N -62.0 W	300	100	300	LARAMIE FOX HILLS
Receipt=3659726B, Permit=77274-F-- WELLS RANCH	SWNW 30 6.0 N -62.0 W	285	85	285	LARAMIE FOX HILLS
Receipt=0432987C, Permit=212215--- WELLS RANCH	SWSW 30 6.0 N -62.0 W	150	0	0	ALL UNNAMED AQUIFERS
Receipt=0432987D, Permit=212215--A-- WELLS RANCH	SWSW 30 6.0 N -62.0 W	0	0	0	ALL UNNAMED AQUIFERS
Receipt=3659083K, Permit=77141-F-- WELLS RANCH	NENE 25 6.0 N -63.0 W	300	100	300	LARAMIE FOX HILLS
Receipt=3659726A, Permit=77275-F-- WELLS RANCH	NWNE 25 6.0 N -63.0 W	305	105	305	LARAMIE FOX HILLS
Receipt=3655493L, Permit=77007-F-- WELLS RANCH	SENE 25 6.0 N -63.0 W	302	100	300	LARAMIE FOX HILLS
Receipt=3659083M, Permit=77148-F-- WELLS RANCH	SWNE 25 6.0 N -63.0 W	305	105	305	LARAMIE FOX HILLS
Receipt=3659083J, Permit=77140-F-- WELLS RANCH	NENW 25 6.0 N -63.0 W	300	100	300	LARAMIE FOX HILLS
Receipt=3656395B, Permit=289337--- WELLS, STEVE	NWNW 25 6.0 N -63.0 W	500	200	400	LARAMIE FOX HILLS
Receipt=0051047, Permit=51047-MH-- WELLS, STEVE	NWNW 25 6.0 N -63.0 W	360	190	360	LARAMIE FOX HILLS
Receipt=3655493K, Permit=77044-F-- WELLS RANCH	SENE 25 6.0 N -63.0 W	310	110	310	LARAMIE FOX HILLS
Receipt=3659083L, Permit=77142-F-- WELLS RANCH	SWNW 25 6.0 N -63.0 W	345	145	345	LARAMIE FOX HILLS
Receipt=0432987A, Permit=212214--- WELLS RANCH	SESE 25 6.0 N -63.0 W	150	0	0	ALL UNNAMED AQUIFERS
Receipt=0432987B, Permit=212214--A-- WELLS RANCH	SESE 25 6.0 N -63.0 W	190	110	190	ALL UNNAMED AQUIFERS
Receipt=3656395C, Permit=289338--- WELLS, STEVE	SENE 26 6.0 N -63.0 W	0	0	0	LARAMIE FOX HILLS
Receipt=C620521, Permit=521-WCB-- FAIRMEADOWS, LAND(DAVIS)	NESW 36 6.0 N -63.0 W	54	0	0	ALL UNNAMED AQUIFERS

## Oil and Gas Wells Selected

## Filter Results by Formation

WELL DESCRIPTION	LOCATION ID	LOCATION	WELL INFORMATION						
05-123-26699, WELLS RANCH 24-36 PDC ENERGY INC	310622	SESW 36 6N -63W (6) 40.436970, -104.387220	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6506	6686	6865 SI
			0 NBRR				6506	6520	6865 CM
			0 CODL				6678	6686	6865 CM
05-123-26700, WELLS RANCH 36B PDC ENERGY INC	310623	NESW 36 6N -63W (6) 40.439250, -104.390030	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6556	6722	6953 SI
05-123-26701, WELLS RANCH 14-36 PDC ENERGY INC	310624	SWSW 36 6N -63W (6) 40.436920, -104.393110	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6431	6690	7385 SI
05-123-26702, WELLS RANCH 23-36 PDC ENERGY INC	310625	NESW 36 6N -63W (6) 40.441310, -104.387940	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6544	6723	7365 SI
			0 NBRR				6544	6558	7365 CM
			0 CODL				6715	6723	7365 CM
05-123-26703, WELLS RANCH 13-36 PDC ENERGY INC	310626	NWSW 36 6N -63W (6) 40.441080, -104.392360	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6462	6722	7672 SI
			0 NBRR				6462	6556	7672 CM
			0 CODL				6714	6722	7672 CM
05-123-26852, WELLS RANCH 21-36 PDC ENERGY INC	310715	NENW 36 6N -63W (6) 40.448420, -104.387000	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6510	6681	6901 SI
05-123-26853, WELLS RANCH 12-36 PDC ENERGY INC	310716	SWNW 36 6N -63W (6) 40.444440, -104.392060	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6574	6747	6931 SI
05-123-26854, WELLS RANCH 36A PDC ENERGY INC	310717	SWNW 36 6N -63W (6) 40.446560, -104.390530	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6558	6739	7329 SI
			0 NBRR				6558	6568	7329 CM
			0 CODL				6733	6739	7329 CM
			0 JSND				7197	7204	7329 AB
05-123-26855, WELLS RANCH 22-36 PDC ENERGY INC	310718	SENW 36 6N -63W (6) 40.444720, -104.386970	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6530	6703	6869 SI
05-123-26856, WELLS RANCH 32-36 PDC ENERGY INC	310719	SWNE 36 6N -63W (6) 40.444690, -104.382220	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6488	6660	6822 PR
05-123-26857, WELLS RANCH 31-36 PDC ENERGY INC	310720	NWNE 36 6N -63W (6) 40.448440, -104.382220	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6472	6644	6800 PR
05-123-26858, WELLS RANCH 36C PDC ENERGY INC	310721	SENE 36 6N -63W (6) 40.446530, -104.380500	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6464	6639	7340 PR
05-123-26859, WELLS RANCH 42-36 PDC ENERGY INC	310722	SENE 36 6N -63W (6) 40.444690, -104.378170	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6464	6634	6793 SI
05-123-26860, WELLS RANCH 41-36 PDC ENERGY INC	310723	NENE 36 6N -63W (6) 40.448330, -104.377810	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6464	6632	6796 SI
05-123-26861, WELLS RANCH 33-36 PDC ENERGY INC	310724	NWSE 36 6N -63W (6) 40.441030, -104.383220	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6400	6670	6824 SI
			0 NBRR				6400	6506	6824 CM
			0 CODL				6664	6670	6824 CM
05-123-26862, WELLS RANCH 44-36 PDC ENERGY INC	310725	SESE 36 6N -63W (6) 40.436890, -104.377560	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6354	6632	6793 SI
			0 NBRR				6354	6632	6793 CM
			0 CODL				6626	6632	6793 CM
05-123-26863, WELLS RANCH 43-36 PDC ENERGY INC	310726	NESE 36 6N -63W (6) 40.441060, -104.378220	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6458	6627	6824 SI
05-123-26864, WELLS RANCH 36D PDC ENERGY INC	310727	NESE 36 6N -63W (6) 40.439440, -104.380360	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6474	6645	7335 SI
			0 JSND				7118	7126	7335 AB
05-123-26865, WELLS RANCH 34-36 PDC ENERGY INC	310728	SWSE 36 6N -63W (6) 40.437280, -104.382830	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6384	6655	6825 SI
05-123-26933, WELLS RANCH 11-36 PDC ENERGY INC	310755	NWNW 36 6N -63W (6) 40.448420, -104.392080	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6580	6754	6958 SI
05-123-31183, Wells Ranch 36N PDC ENERGY INC	415783	SWNE 36 6N -63W (6) 40.446420, -104.385060	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6406	6674	6837 SI
05-123-31193, Wells Ranch 36K PDC ENERGY INC	415771	SENW 36 6N -63W (6) 40.442970, -104.389920	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6460	6732	6930 SI
05-123-31202, Wells Ranch 36O PDC ENERGY INC	415777	NESW 36 6N -63W (6) 40.442991, -104.384990	Sidetrack	Formation	Top		Bottom	TD	Status
			0 NB-CD				6406	6676	6835 SI

05-123-31208, Wells Ranch 36P PDC ENERGY INC	415836 SWSE 36 6N -63W (6) 40.439140, -104.384670	Sidetrack Formation	Top	Bottom	TD	Status
05-123-31212, Wells Ranch 36F PDC ENERGY INC	415909 SWNW 36 6N -63W (6) 40.446390, -104.394140	Sidetrack Formation	Top	6397	6668	6826 SI
05-123-31218, Wells Ranch 36J PDC ENERGY INC	415775 NENW 36 6N -63W (6) 40.449750, -104.389560	Sidetrack Formation	Top	Bottom	TD	Status
05-123-31235, Wells Ranch 36T PDC ENERGY INC	416029 SESE 36 6N -63W (6) 40.436080, -104.380220	Sidetrack Formation	Top	6486	6756	6921 SI
05-123-31236, Wells Ranch 36L PDC ENERGY INC	415823 SWSW 36 6N -63W (6) 40.436060, -104.390390	Sidetrack Formation	Top	Bottom	TD	Status
05-123-31248, Wells Ranch 36H PDC ENERGY INC	415980 SWSW 36 6N -63W (6) 40.439030, -104.394220	Sidetrack Formation	Top	6450	6719	6889 SI
05-123-31250, Wells Ranch 36R PDC ENERGY INC	415820 NENE 36 6N -63W (6) 40.449720, -104.379920	Sidetrack Formation	Top	Bottom	TD	Status
05-123-31288, Wells Ranch 36S PDC ENERGY INC	415917 NWSE 36 6N -63W (6) 40.442860, -104.380530	Sidetrack Formation	Top	6372	6643	6811 SI
05-123-31334, Wells Ranch 36V PDC ENERGY INC	415824 NENE 36 6N -63W (6) 40.446530, -104.376470	Sidetrack Formation	Top	Bottom	TD	Status
05-123-35839, State 36MR-407 PDC ENERGY INC	415820 NWNE 36 6N -63W (6) 40.449720, -104.380570	Sidetrack Formation	Top	6418	6692	6843 SI
05-123-35840, State 36RU-407 PDC ENERGY INC	415820 NENE 36 6N -63W (6) 40.449720, -104.380460	Sidetrack Formation	Top	Bottom	TD	Status
05-123-35849, State 36J-206 PDC ENERGY INC	415775 NENW 36 6N -63W (6) 40.449720, -104.388860	Sidetrack Formation	Top	6432	6700	6858 SI
05-123-35866, State 36JM-206 PDC ENERGY INC	415775 NENW 36 6N -63W (6) 40.449720, -104.388680	Sidetrack Formation	Top	Bottom	TD	Status
05-123-35909, State 36TY-208 PDC ENERGY INC	416029 SESE 36 6N -63W (6) 40.436070, -104.380040	Sidetrack Formation	Top	6372	6644	6835 PR
05-123-35910, State 36QT-208 PDC ENERGY INC	416029 SESE 36 6N -63W (6) 40.436070, -104.380400	Sidetrack Formation	Top	Bottom	TD	Status
05-123-35916, State 36IL-405 PDC ENERGY INC	415823 SESW 36 6N -63W (6) 40.436050, -104.389840	Sidetrack Formation	Top	6368	6639	6814 SI
05-123-35940, State 36LQ-405 PDC ENERGY INC	415823 SESW 36 6N -63W (6) 40.436050, -104.389740	Sidetrack Formation	Top	Bottom	TD	Status
05-123-38654, Wells Ranch AA35-67-1AHNA NOBLE ENERGY INC	435552 SWNW 36 6N -63W (6) 40.444857, -104.394100	Sidetrack Formation	Top	6353	6626	6784 SI
05-123-38655, Wells Ranch AA35-67-1BHNA NOBLE ENERGY INC	435552 SWNW 36 6N -63W (6) 40.444662, -104.394100	Sidetrack Formation	Top	Bottom	TD	Status
05-123-38656, Wells Ranch AA35-67-1HNC NOBLE ENERGY INC	435552 SWNW 36 6N -63W (6) 40.444757, -104.394100	Sidetrack Formation	Top	Bottom	TD	Status
05-123-38657, Wells Ranch AA35-64-1AHNA NOBLE ENERGY INC	435552 NWSW 36 6N -63W (6) 40.441124, -104.394110	Sidetrack Formation	Top	Bottom	TD	Status
05-123-38658, Wells Ranch AA35-65-1AHNA NOBLE ENERGY INC	435552 NWSW 36 6N -63W (6) 40.441332, -104.394100	Sidetrack Formation	Top	Bottom	TD	Status
05-123-38659, Wells Ranch AA35-64-1BHNC NOBLE ENERGY INC	435552 NWSW 36 6N -63W (6) 40.441022, -104.394110	Sidetrack Formation	Top	Bottom	TD	Status
05-123-38660, Wells Ranch AA35-66-1AHNC NOBLE ENERGY INC	435552 SWNW 36 6N -63W (6) 40.444552, -104.394110	Sidetrack Formation	Top	Bottom	TD	Status
05-123-38661, Wells Ranch AA35-65-1BHNC NOBLE ENERGY INC	435552 NWSW 36 6N -63W (6) 40.441236, -104.394100	Sidetrack Formation	Top	Bottom	TD	Status
05-123-38662, Wells Ranch AA35-69-1BHNC NOBLE ENERGY INC	435565 NWNW 36 6N -63W (6) 40.448384, -104.394090	Sidetrack Formation	Top	Bottom	TD	Status
05-123-38663, WELLS RANCH AA35-69-1HNB NOBLE ENERGY INC	435565 NWNW 36 6N -63W (6) 40.448495, -104.394100	Sidetrack Formation	Top	Bottom	TD	Status
05-123-38664, Wells Ranch AA35-68-1AHNA NOBLE ENERGY INC	435565 NWNW 36 6N -63W (6) 40.448290, -104.394100	Sidetrack Formation	Top	Bottom	TD	Status
05-123-38665, Wells Ranch AA35-68-1BHNC NOBLE ENERGY INC	435565 NWNW 36 6N -63W (6) 40.448182, -104.394100	Sidetrack Formation	Top	Bottom	TD	Status
05-123-38666, Wells Ranch AA35-69-1AHNC NOBLE ENERGY INC	435565 NWNW 36 6N -63W (6) 40.448593, -104.394110	Sidetrack Formation	Top	Bottom	TD	Status
05-123-38667, Wells Ranch AA35-62-1HNA NOBLE ENERGY INC	435566 SWSW 36 6N -63W (6) 40.437397, -104.394120	Sidetrack Formation	Top	Bottom	TD	Status
05-123-38668, Wells Ranch AA35-62-1BHNC NOBLE ENERGY INC	435566 SWSW 36 6N -63W (6) 40.437295, -104.394120	Sidetrack Formation	Top	Bottom	TD	Status
				7008	11008	11094 PR
				6995	10962	11059 PR
				7147	11112	11210 SI
				7011	10977	11056 PR
				6966	10969	11065 PR
				7114	10989	11178 PR
				7133	10314	11190 PR
				7099	10867	10946 PR
				7636	11222	11322 PR
				7125	11152	11250 PR
				7069	11070	11169 SI
				7212	11212	11307 PR
				7197	11223	11299 PR
				6832	10766	10975 PR
				7079	11098	11192 PR

05-123-38669, Wells Ranch AA35-63-1BHNA NOBLE ENERGY INC	435566 SWSW 36 6N -63W (6) Sidetrack Formation 40.437604, -104.394111 0 NBRR	Top	Bottom	TD	Status
05-123-38670, Wells Ranch AA35-62-1AHNC NOBLE ENERGY INC	435566 SWSW 36 6N -63W (6) Sidetrack Formation 40.437499, -104.394114 0 NBRR	Top	6977	10981	11078 PR
05-123-38889, Wells Ranch AA35-63-1HNC NOBLE ENERGY INC	435552 NWSW 36 6N -63W (6) Sidetrack Formation 40.440818, -104.394116 0 NBRR	Top	Bottom	TD	Status
05-123-38890, Wells Ranch AA35-63-1AHNA NOBLE ENERGY INC	435552 NWSW 36 6N -63W (6) Sidetrack Formation 40.440923, -104.394117 0 NBRR	Top	7102	10993	11091 SI
			Bottom	TD	Status
			7138	11150	11244 PR
			Bottom	TD	Status
			7025	11017	11115 PR