

Report Date: 1/29/2018

Bedrock Aquifer Evaluation Determination Tool

Denver Basin Aquifer - Specific Location Determination Tool

Applicant: Noble - Waste
Management 12-11
(API 123-22860)

Receipt No:

Evaluated By:

Location: SW 1/4 of NW 1/4 of Sec. 11, T.2N, R.64W. (1992 NSL, 659 WSL)

Basin Designation: Location is within the UNKNOWN Designated Ground Water Basin.

Ground Surface Elevation: 4971 Feet Number of Acres: 160

Aquifer	Elevation (ft)		Net Sand	DEPTH (ft)		ANNUAL APRPROP. (A-F)	STATUS
	Bot	Top		Bot	Top		
Upper Dawson	--	--	--	--	--	--	--
Lower Dawson	--	--	--	--	--	--	--
Denver	--	--	--	--	--	--	--
Upper Arapahoe	--	--	--	--	--	--	--
Lower Arapahoe	--	--	--	--	--	--	--
Laramie-Fox Hills	4084	4419	165.5	887	552	39.73	NT

NOTE: 'E' indicates a location is at an aquifer boundary and the values may be more approximate.

Plug and Abandon Surface Casing Check

Operator	Noble		
API or Doc #	Waste Management 12-11 (API 123-22860)		
SB5 Base of Fox Hills	887'		
Deepest Water Well Within One Mile / number of wells	920'	/	17
Deepest Water Well Within Two Miles / number of wells		/	
Sussex / Shannon Production within one mile	No	/	No
Operator Existing Surface Casing Depth	996'		
Production Casing to be pulled	1196'		

Water Wells Selected From Map
Filter Results by Depth

WELL DESCRIPTION	LOCATION	WELL INFORMATION		
		Depth	Top Perf	Bottom Perf Aquifer
Receipt=0001147, Permit=1993073-AB-INDUSTRIAL COMPLIANCE	NWSW 2 2 N-64W	0	0	0 GW
Receipt=0001158, Permit=1993084-AB-INDUSTRIAL COMPLIANCE	NWSW 2 2 N-64W	0	0	0 GW
Receipt=0001170A, Permit=1993096-AB-INDUSTRIAL COMPLIANCE	NWSW 2 2 N-64W	0	0	0 GW
Receipt=0359435, Permit=0173831--WASTE SERVICES CO	NWSW 2 2 N-64W	55	35	55 GW
Receipt=9058469, Permit=0000363--FEATHERSTONE OLIN F	NWNE 10 2 N-64W	0	0	0 GW
Receipt=0018129, Permit=0091369-VE-GUTTERSEN & CO	SWNE 10 2 N-64W	0	0	0 GW
Receipt=0330193A, Permit=0161814--GUTTERSEN & CO	SWNE 10 2 N-64W	150	0	0 GW
Receipt=0330193B, Permit=0161814--A GUTTERSEN & CO	SWNE 10 2 N-64W	450	350	450 KLF
Receipt=3677351, Permit=0303818--TIPPETT TYLER	NENW 14 2 N-64W	0	0	0 KLF
Receipt=3678071, Permit=0304365--JERVIS JOHN	NENW 14 2 N-64W	0	0	0 KLF
Receipt=3633668, Permit=0279233--JERVIS JOHN & JAN	NENW 14 2 N-64W	0	0	0 KLF
Receipt=0399791, Permit=0195576--HARO DENYS A	NWNW 14 2 N-64W	520	400	520 KLF
Receipt=0457189A, Permit=0223920--FEATHER JERRY & PATTY	NENE 15 2 N-64W	920	600	920 KLF
Receipt=3654664, Permit=0288458--INGLE CHRISTINA SUE & TRENT	NENE 15 2 N-64W	0	0	0 KLF
Receipt=3665070A, Permit=0294804--PEARSON BRIAN & MARIA	NENE 15 2 N-64W	900	580	900 KLF
Receipt=3665070B, Permit=0294805--ALSTON MICHELLE L & MARTIN A BECKWITH	NENE 15 2 N-64W	900	580	900 KLF
Receipt=0457189B, Permit=0223919--FEATHER JERRY & PATTY	NWNE 15 2 N-64W	920	600	920 KLF

Oil and Gas Wells Selected

Filter Results by Formation

WELL DESCRIPTION	LOCATION ID	LOCATION	WELL INFORMATION				
05-123-33592, Waste Management 44-2H PDC ENERGY INC	423448	SESE 2 2N -64W (6) 40.161610, -104.510210	Sidetrack	TD	Formation	Status	AL
05-123-36953, Waste Management 2L-441 PDC ENERGY INC	432119	SWSW 2 2N -64W (6) 40.160840, -104.525850	Sidetrack	TD	Formation	Status	CM
05-123-36954, Waste Management 2i-401 PDC ENERGY INC	432119	SWSW 2 2N -64W (6) 40.160850, -104.526060	Sidetrack	TD	Formation	Status	PR
05-123-36955, Waste Management 2i-221 PDC ENERGY INC	432119	SWSW 2 2N -64W (6) 40.160830, -104.525970	Sidetrack	TD	Formation	Status	SI
05-123-36956, Waste Management 2L-201 PDC ENERGY INC	432119	SWSW 2 2N -64W (6) 40.160840, -104.525740	Sidetrack	TD	Formation	Status	PR
05-123-36957, WASTE MANAGEMENT 2L-421 PDC ENERGY INC	432121	SESW 2 2N -64W (6) 40.160820, -104.520840	Sidetrack	TD	Formation	Status	CM
05-123-36958, WASTE MANAGEMENT 2L-301 PDC ENERGY INC	432121	SESW 2 2N -64W (6) 40.160820, -104.520940	Sidetrack	TD	Formation	Status	PR
05-123-36959, Waste Management 2Q-401 PDC ENERGY INC	432121	SESW 2 2N -64W (6) 40.160820, -104.520620	Sidetrack	TD	Formation	Status	CM
05-123-36960, Waste Management 2Q-341 PDC ENERGY INC	432121	SESW 2 2N -64W (6) 40.160820, -104.520730	Sidetrack	TD	Formation	Status	PR
05-123-36961, Waste Management 2T-401 PDC ENERGY INC	432133	SESE 2 2N -64W (6) 40.160780, -104.512970	Sidetrack	TD	Formation	Status	CM
05-123-36962, WASTE MANAGEMENT 2T-301 PDC ENERGY INC	432133	SESE 2 2N -64W (6) 40.160780, -104.513870	Sidetrack	TD	Formation	Status	PR
05-123-36963, WASTE MANAGEMENT 2Q-201 PDC ENERGY INC	432133	SWSE 2 2N -64W (6) 40.160790, -104.514190	Sidetrack	TD	Formation	Status	PR
05-123-36964, Waste Management 2T-221 PDC ENERGY INC	432133	SESE 2 2N -64W (6) 40.160780, -104.512870	Sidetrack	TD	Formation	Status	PR
05-123-36965, Waste Management 2Y-441 PDC ENERGY INC	432133	SESE 2 2N -64W (6) 40.160780, -104.512760	Sidetrack	TD	Formation	Status	CM
05-123-36966, WASTE MANAGEMENT 2Q-321 PDC ENERGY INC	432133	SWSE 2 2N -64W (6) 40.160790, -104.514080	Sidetrack	TD	Formation	Status	PR
05-123-36967, WASTE MANAGEMENT 2T-241 PDC ENERGY INC	432133	SWSE 2 2N -64W (6) 40.160790, -104.513980	Sidetrack	TD	Formation	Status	PR
05-123-36986, Waste Management 2Y-201 PDC ENERGY INC	432133	SESE 2 2N -64W (6) 40.160780, -104.512650	Sidetrack	TD	Formation	Status	PR
05-123-22852, WASTE MANAGEMENT 44-3 NOBLE ENERGY INC	305358	SESE 3 2N -64W (6) 40.162030, -104.530640	Sidetrack	TD	Formation	Status	SI
05-123-24794, WASTE MANAGEMENT USX Y 3-9 NOBLE ENERGY INC	306497	NESE 3 2N -64W (6) 40.165392, -104.530973	Sidetrack	TD	Formation	Status	CM
05-123-24795, WASTE MANAGEMENT USX Y 3-10 NOBLE ENERGY INC	306498	NWSE 3 2N -64W (6) 40.165939, -104.535681	Sidetrack	TD	Formation	Status	CM
05-123-24799, WASTE MANAGEMENT USX Y 3-14 NOBLE ENERGY INC	306502	SESW 3 2N -64W (6) 40.161760, -104.540410	Sidetrack	TD	Formation	Status	CM
05-123-24801, WASTE MANAGEMENT USX Y 3-15 NOBLE ENERGY INC	306504	SWSE 3 2N -64W (6) 40.162187, -104.534507	Sidetrack	TD	Formation	Status	CM

05-123-24802, WASTE MANAGEMENT USX Y 3-23 NOBLE ENERGY INC	306505 NWSE 3 2N -64W (6) 40.164146, -104.533344	Sidetrack	0 7216 NB-CD SI 0 7216 NBRR CM TD Formation Status 0 7190 CODL CM 0 7190 NB-CD SI 0 7190 NBRR CM TD Formation Status AL
05-123-18658, WASTE 10-7K4 SNYDER OIL CORP	409168 SWNE 10 2N -64W (6) 40.155718, -104.534142	Sidetrack	TD Formation Status
05-123-37940, Oscar Y 10-72-1HN NOBLE ENERGY INC	434092 NESE 10 2N -64W (6) 40.152220, -104.530780	Sidetrack	0 14333 NBRR PR TD Formation Status
05-123-37941, Oscar Y 10-73-1HC NOBLE ENERGY INC	434092 NESE 10 2N -64W (6) 40.152220, -104.531320	Sidetrack	0 14438 NBRR PR TD Formation Status
05-123-37942, Oscar Y 10-72-1HC NOBLE ENERGY INC	434092 NESE 10 2N -64W (6) 40.152220, -104.530920	Sidetrack	0 14600 CODL PR TD Formation Status
05-123-37943, Oscar Y11-79HN NOBLE ENERGY INC	434092 NESE 10 2N -64W (6) 40.152220, -104.530650	Sidetrack	1 8396 NBRR PR TD Formation Status
05-123-37944, Oscar Y 10-73HN NOBLE ENERGY INC	434092 NESE 10 2N -64W (6) 40.152223, -104.531463	Sidetrack	0 14549 NBRR PR TD Formation Status
05-123-37945, Oscar Y 10-73-1HN NOBLE ENERGY INC	434092 NESE 10 2N -64W (6) 40.152220, -104.531190	Sidetrack	0 14398 NBRR PR TD Formation Status
05-123-38046, Oscar Y 10-72HN NOBLE ENERGY INC	434092 NESE 10 2N -64W (6) 40.152220, -104.531060	Sidetrack	0 14445 NBRR PR TD Formation Status AL
05-123-38194, OSCAR Y 10-77-1HN NOBLE ENERGY INC	434492 NESW 10 2N -64W (6) 40.152240, -104.539720	Sidetrack	TD Formation Status
05-123-38195, OSCAR Y 10-76-1HN NOBLE ENERGY INC	434492 NESW 10 2N -64W (6) 40.152252, -104.539599	Sidetrack	0 14399 NBRR PR TD Formation Status AL
05-123-38196, OSCAR Y 10-76-1HC NOBLE ENERGY INC	434492 NESW 10 2N -64W (6) 40.152240, -104.539460	Sidetrack	TD Formation Status
05-123-38197, OSCAR Y 10-77-1HC NOBLE ENERGY INC	434492 NESW 10 2N -64W (6) 40.152246, -104.539872	Sidetrack	0 14740 CODL SI TD Formation Status
05-123-38198, OSCAR Y 10-77HN NOBLE ENERGY INC	434492 NESW 10 2N -64W (6) 40.152252, -104.539960	Sidetrack	0 14600 N-COM PR 0 14600 NBRR PR TD Formation Status
05-123-38199, OSCAR Y 10-76HN NOBLE ENERGY INC	434492 NESW 10 2N -64W (6) 40.152243, -104.539736	Sidetrack	0 14575 NBRR PR TD Formation Status
05-123-38200, Oscar Y 10-75-1HN NOBLE ENERGY INC	434501 NWSE 10 2N -64W (6) 40.152235, -104.535483	Sidetrack	0 14437 NBRR PR TD Formation Status
05-123-38201, OSCAR Y 10-75HN NOBLE ENERGY INC	434501 NWSE 10 2N -64W (6) 40.152243, -104.535753	Sidetrack	0 14544 NBRR PR TD Formation Status
05-123-38202, Oscar Y 10-75-1HC NOBLE ENERGY INC	434501 NWSE 10 2N -64W (6) 40.152238, -104.535612	Sidetrack	0 14440 NBRR PR TD Formation Status
05-123-38203, OSCAR Y 10-74-1HN NOBLE ENERGY INC	434501 NWSE 10 2N -64W (6) 40.152240, -104.535082	Sidetrack	0 14377 NBRR PR TD Formation Status
05-123-38204, OSCAR Y 10-74-1HC NOBLE ENERGY INC	434501 NWSE 10 2N -64W (6) 40.152238, -104.535220	Sidetrack	0 14684 CODL PR TD Formation Status
05-123-38205, Oscar Y 10-74HN NOBLE ENERGY INC	434501 NWSE 10 2N -64W (6) 40.152244, -104.535357	Sidetrack	0 12678 NBRR PR TD Formation Status
05-123-45369, Bison Ridge Y22-719 NOBLE ENERGY INC	434501 NWSE 10 2N -64W (6) 40.151820, -104.535200	Sidetrack	0 N-COM DG TD Formation Status DG
05-123-45370, Bison Ridge Y22-756 NOBLE ENERGY INC	434492 NESW 10 2N -64W (6) 40.151830, -104.539440	Sidetrack	TD Formation Status DG
05-123-45371, Bison Ridge Y22-734 NOBLE ENERGY INC	434501 NWSE 10 2N -64W (6) 40.151820, -104.535460	Sidetrack	TD Formation Status DG
05-123-45372, Bison Ridge Y22-771 NOBLE ENERGY INC	434492 NESW 10 2N -64W (6) 40.151830, -104.539710	Sidetrack	TD Formation Status DG

05-123-45373, Bison Ridge State Y22-786 NOBLE ENERGY INC	434492 NESW 10 2N -64W (6) 40.151830, -104.539980	Sidetrack	TD	Formation	Status DG
05-123-45374, Bison Ridge Y22-741 NOBLE ENERGY INC	434501 NWSE 10 2N -64W (6) 40.151820, -104.535600	Sidetrack	TD	Formation	Status DG
05-123-45375, Bison Ridge Y22-726 NOBLE ENERGY INC	434501 NWSE 10 2N -64W (6) 40.151820, -104.535330	Sidetrack	TD	Formation	Status DG
05-123-45376, Bison Ridge Y22-764 NOBLE ENERGY INC	434492 NESW 10 2N -64W (6) 40.151830, -104.539580	Sidetrack	TD	Formation	Status DG
05-123-45377, Bison Ridge Y22-711 NOBLE ENERGY INC	434501 NWSE 10 2N -64W (6) 40.151820, -104.535060	Sidetrack	TD	Formation	Status DG
05-123-45378, Bison Ridge Y22-779 NOBLE ENERGY INC	434492 NESW 10 2N -64W (6) 40.151830, -104.539850	Sidetrack	TD	Formation	Status DG
05-123-45379, Bison Ridge Y22-749 NOBLE ENERGY INC	434501 NWSE 10 2N -64W (6) 40.151820, -104.535730	Sidetrack	TD	Formation	Status DG
05-123-21064, Marolf 14-11 NOBLE ENERGY INC	331653 SWSW 11 2N -64W (6) 40.147122, -104.525676	Sidetrack	TD	Formation	Status 0 7800 CODL CM 0 7800 DK-J CM 0 7800 DKTA SI 0 7800 JSND SI 0 7800 NB-CD SI 0 7800 NBRR CM
05-123-22860, WASTE MANAGEMENT 12-11 NOBLE ENERGY INC	305366 SWNW 11 2N -64W (6) 40.154780, -104.525830	Sidetrack	TD	Formation	Status 0 7749 CODL CM 0 7749 J-CDL CM 0 7749 JSND SI 0 7749 NB-CD PR 0 7749 NBRR CM
05-123-23303, Marolf 34-11 NOBLE ENERGY INC	305648 SWSE 11 2N -64W (6) 40.146984, -104.516966	Sidetrack	TD	Formation	Status 0 7815 CODL CM 0 7815 JSND SI 0 7815 NB-CD SI 0 7815 NBRR CM
05-123-44838, Waste Management Y23-760 NOBLE ENERGY INC	450627 NWNE 11 2N -64W (6) 40.158020, -104.518380	Sidetrack	TD	Formation	Status 0 N-COM DG
05-123-44839, Waste Management Y23-784 NOBLE ENERGY INC	450616 NWNW 11 2N -64W (6) 40.158050, -104.524950	Sidetrack	TD	Formation	Status 0 N-COM DG
05-123-44840, Waste Management Y23-712 NOBLE ENERGY INC	450618 NENE 11 2N -64W (6) 40.157990, -104.511940	Sidetrack	TD	Formation	Status 0 N-COM DG
05-123-44841, Waste Management Y23-736 NOBLE ENERGY INC	450627 NWNE 11 2N -64W (6) 40.158020, -104.517980	Sidetrack	TD	Formation	Status 0 N-COM DG
05-123-44842, Waste Management Y23-720 NOBLE ENERGY INC	450618 NENE 11 2N -64W (6) 40.157990, -104.512070	Sidetrack	TD	Formation	Status 0 N-COM DG
05-123-44843, Waste Management Y23-744 NOBLE ENERGY INC	450627 NWNE 11 2N -64W (6) 40.158020, -104.518110	Sidetrack	TD	Formation	Status 0 N-COM DG
05-123-44844, Waste Management Y23-728 NOBLE ENERGY INC	450618 NENE 11 2N -64W (6) 40.157990, -104.512210	Sidetrack	TD	Formation	Status 0 N-COM DG
05-123-44845, Waste Management Y23-768 NOBLE ENERGY INC	450616 NWNW 11 2N -64W (6) 40.158050, -104.524690	Sidetrack	TD	Formation	Status 0 N-COM DG
05-123-44846, Waste Management Y23-752 NOBLE ENERGY INC	450627 NWNE 11 2N -64W (6) 40.158020, -104.518250	Sidetrack	TD	Formation	Status 0 N-COM DG
05-123-44847, Waste Management Y23-776 NOBLE ENERGY INC	450616 NWNW 11 2N -64W (6) 40.158050, -104.524820	Sidetrack	TD	Formation	Status 0 N-COM DG
05-123-22980, JERVIS 21-14 BLUE CHIP OIL INC	305440 NENW 14 2N -64W (6) 40.144330, -104.520390	Sidetrack	TD	Formation	Status 0 7805 JSND SI 0 7805 NB-CD PR

05-123-21075, FEATHER 31-15	331660 NWNE 15 2N -64W (6)	Sidetrack	TD	Formation	Status
NOBLE ENERGY INC	40.144461, -104.534503		0	7700 JSND	PR