

Run Time: 08:29 AM

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Run Date: 01/28/2016
Page 1 of 1

LLD ACREAGE REPORT

Admin State: NM
Geo State: NM

MTR: 23 0250S 0350E

Section: 005

Sur Type	Sur No	Lld Suff	NE	NW	SW	SE	Sur Note	Dup Flg	Sub Surf	Acreage
			NNSS	NNSS	NNSS	NNSS				
A			--XX	--XX	XXXX	XXXX				480.000
L	1		X---	----	----	----				40.820
L	2		-X--	----	----	----				40.700
L	3		----	X---	----	----				40.580
L	4		----	-X--	----	----				40.460

Section 005 Total: 642.560

MTR Total Excluding Survey Notes C/D/R
and Sub Surf = Y 642.560

Grand Total Excluding Survey Notes C/D/R
and Sub Surf = Y: 642.560



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
<u>CP 00365</u>			XX	3	3	1	10	24S	35E	654253	3567431*	190		
<u>CP 00573</u>			LE	1	4	1	10	24S	35E	654657	3567638*	405	300	105
<u>CP 00839</u>			LE		4	3	30	24S	35E	650017	3561833*	175		
<u>CP 00842</u>			LE		2	4	24	24S	35E	658834	3563982*	130		
<u>CP 00845</u>			LE		1	3	10	24S	35E	654360	3567130*	190		
<u>CP 01056 POD1</u>			LE	4	4	3	02	24S	35E	656465	3568304	5396	4399	997
<u>CP 01057 POD1</u>			LE	4	2	3	02	24S	35E	656464	3568762	5390	4365	1025
<u>CP 01513 POD1</u>			LE	3	3	1	10	24S	35E	654184	3567350	186	178	8
<u>P 04623 POD4</u>			RO	2	2	4	14	24S	35E	653797	3787492	250		

Average Depth to Water: **2310 feet**
 Minimum Depth: **178 feet**
 Maximum Depth: **4399 feet**

Record Count: 9

PLSS Search:

Township: 24S

Range: 35E

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



New Mexico Office of the State Engineer
Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 32

Township: 24S

Range: 35E



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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C=the file is (quarters are 1=NW 2=NE 3=SW 4=SE)

closed) (quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
<u>C 02296</u>	CUB	LE		1	3	2	18	25S	35E	650398	3556305*	300	230	70
<u>C 02297</u>	CUB	LE		2	2	1	21	25S	35E	653436	3555140*	300	230	70
<u>C 02298</u>	CUB	LE		2	2	1	21	25S	35E	653436	3555140*	250	205	45
<u>C 02388</u>		LE				3	05	25S	35E	651467	3558832*	180	165	15
<u>CP 00178</u>		LE		2	1	1	24	25S	35E	657867	3555206*	240		
<u>CP 00183</u>		LE		4	2	3	13	25S	35E	658256	3555818*	240		

Average Depth to Water: **207 feet**

Minimum Depth: **165 feet**

Maximum Depth: **230 feet**

Record Count: 6

PLSS Search:

Township: 25S

Range: 35E

*UTM location was derived from PLSS - see Help

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New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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O=orphaned,

C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters) (In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 02388			LE	3	05	25S	35E			651467	3558832*	180	165	15

Average Depth to Water: **165 feet**
 Minimum Depth: **165 feet**
 Maximum Depth: **165 feet**

Record Count: 1

PLSS Search:

Section(s): 5

Township: 25S

Range: 35E

*UTM location was derived from PLSS - see Help

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**COG OPERATING LLC Pre-Drill Geological Prognosis
3rd Bone Spring Sand Extended Lateral with Pilot Hole
Field:**

3BS	+PH
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Skull Cap Fed Com #2H
Enter API#

Rig: **McVay #8**

Target Zone: 3rd Bone Spring Sand						
	Regular section	FNL	FSL	FEL	FWL	Unit
§-T-R (SHL)	S32-24S-35E		2590	1980		J
§-T-R (BHL)	S5-25S-35E		330	1980		O

GL:	3286	actual
KB:	3312	actual

PROPOSED WELL				REFERENCE WELL			
COG OPERATING LLC				←-----8650'-----→			
Skull Cap Fed Com #2H				Est. VS:	7561.4	Chicken:	No
S32-24S-35E				Trt. Lat:	7209	Potash:	No
Lea Co., NM				PH-TD:	12750	Lizard:	No
KB:	3312	Est. MD:	19700	AFE type:	TopHat BSS PH		KB: 3288

Formations	TVD	Subsea	Iso to Tgt	Lith	Hazards/Misc	TVD	Subsea	Iso
Rustler	789	2523		Mixed lithologies		741	2547	355
TOS	1227	2085		Salt		1096	2192	4061
BOS (Fletcher)	5126	-1814		Anhydrite		5157	-1869	133
LMAR (Top Delaware)	5341	-2029		Limestone		5290	-2002	30
BLCN	5377	-2065		Silt, Sand & Carb		5320	-2032	931
CYCN	6325	-3013		Silt, Sand & Carb		6250	-2962	1547
BYCN	7872	-4560		Silt, Sand & Carb		7797	-4509	1253
Bone Sprg (BSGL)	9187	-5875		Limestone		9050	-5762	22
U Avalon/LNRD Sh	9237	-5925	3155	Silt, Shale & Carb		9073	-5785	206
U Avalon Sh	9462	-6150	2930	Silt, Shale & Carb		9279	-5991	1114
FBSG sand	10464	-7152	1928	Fine Sand & Carb		10392	-7104	519
SBSG sand	11000	-7688	1392	Fine Sand & Carb		10911	-7623	1071
☆ TBSG sand	12022	-8710	370	Fine Sand & Carb		11983	-8695	366
WFMP	12417	-9105		Fine Sand & Carb		12349	-9061	103
WFMP Lith	12512	-9200		Silt, Shale & Carb		12452	-9164	N/A
PSLV	13332	-10020		Silt, Shale & Carb		N/A	N/A	
EOC target	12392	-9080						
EOL target	12406	-9094						

Est. incl. 89.89

Comments

1.5 Mile Extended Lateral with Pilot Hole to Upper Wolfcamp. MWD-GR through curve and lateral.

Wireline Evaluation

PH Logs - See Logging Prognosis

Coring and Testing

Mudlogging

Log out from 4000' with a 2-man unit keeping 1 set of 20' samples & capturing 1' drill time.

Land (obligations and deadlines)

Version/Geologist

v2 Carrie Martin

DATE: 1/27/2016