GEOLOGIC WELL REPORT

CHAMPLIN PETROLEUM COMPANY

CPC #2 Downing 21-29

NE NW Section 29--Township 3 South--Range 58 West

Adams County, Colorado

Prepared by: J. Mark Webster
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WELL DATA

Operator:	Champlin Petroleum Company Englewood, Colorado
Well Name:	#2 Downing 21-29
Location:	NE NW Section 29--Township 3 South--Range 58 West
Contractor:	Exeter Drilling Northern, Inc. Denver, Colorado Rig #6
Toolpusher:	Harley Davis
Elevations:	5124' G.L. (survey) 5132' K.B.
Surface Casing:	8 5/8', 24#, K-55, 8 jts., set @ 343' w/ 250 sx. 3% CaCl
Spud Date:	7-3-85, 1:00 p.m.
Drillout:	7-4-85, 4:45 a.m.
T.D. Reached:	7-8-85, 5:48 a.m.
T.D.:	6170' Driller 6170' Logger
Mud Up Depth:	4964'
Drilling Fluid:	Chem Gel
Mud Company:	Quality Drilling Fluids Engineering Longmont, Colorado
Mud Engineer:	Mike Schmidt
Drill Collar:	12 collars, 6" O.D. X 2 1/4" I.D., 348'
Weight Pipe:	15 jts., 474'
Drill Pipe:	4 1/2" I.D., 6" O.D., X-H Thread Type, 13.75#, Grade "E"
Pump:	EMSCO D-375, 379 H.P. CAT
Pump Liner:	5 1/2", 14" Stroke

WELL DATA (cont.)

Drawworks:	National T-20 3406 CAT, 720 H.P.
Engineer:	Jim Bundy Denver, Colorado
Geologist:	Mark Webster Evergreen, Colorado
Cores:	One 60' Core of J Sandstone
Tests:	None
Open Hole Logs By:	Gearhart Fort Morgan, Colorado
Field Engineer:	Mark Etherton
Open Hole Logs Run:	GR-DIL-SFL: From T.D. to surface casing w/ 5" GR cont. to Ground Level GR-LDT-CNL: From T.D. to 5000'
Samples:	10' samples caught from 5850' to T.D. at 10' intervals 10' core samples caught while coring
Status:	P & A, 7-8-85

CHRONOLOGICAL WELL HISTORY

1985 Date	7:00 a.m. Depth	Report Time Operations	Footage Made	Activity
7-4	343'	MI & RU	343'	MI&RU. Drill rat & mouse holes, spud surface hole @ 1:00 p.m., 7-3-85, drill, circ. survey, run 8 jts. 8 5/8", 24#, J-55 landed @ 343' w/250 sx. class Gw/ 3% CaCl, plug down @ 7:20 p.m., W.O.C., drill cement.
7-5	4440'	Drilling	4097'	Drill, survey, bit trip.
7-6	5852'	Drilling	1412'	Short trip 8 stds. @ 5535', drill, repair hi chain, drill.
7-7	6008	Coring	156'	Drill, short trip 20 stds., circ., strap out of hole, P.U. core bit & TIH, ream 60' to bottom, coring.
7-8	6170'	Trip for logs	162'	TOH with core bbl. & lay down core, TIH w/ bit #4, drill, reach T.D. @ 5:48 a.m., prep to log.

MUD RECORD

1985 Date	Time	Depth	M.W.	Vis	p.H.	W.L.	F.C.	Cl	Ca	Comments
7-3-85 through 7-5-85: Drilling with Water & Native Mud										
7-6	6:15 a.m.	5838	9.4	44	9.0	8.8	2	300	40	Mud up @ 4964
7-7	6:00 a.m.	6002	9.7	47	8.0	8.0	2	300	40	
7-8	6:00 a.m.	6170	9.9	51	8.5	7.2	2	300	40	

BIT RECORD

No.	Size	Make	Type	Out @	Ftg.	Hrs.	Ft/Hr	Accum. Drlg Hrs	WT	RPM	Dev.	P.P.	SPM
1A	12 1/4	SEC	S335	353	353	4 1/2	78.4	4 1/2	8	140	1°	350	66
1	7 7/8	STC	DSJ	4200	3847	17 1/4	223	21 3/4	10/35	160	3/4°	1200	66
2	7 7/8	HTC	J-1	6000	1798	27 1/2	65.4	49 1/4	35	120	1°	975	66
3	7 7/8	Dia. Boart	CB303	6141	41	7 1/2	5.6	56 3/4	5/18	60	--	725	48
4	7 7/8	HTC	J-22	6170	129	7 3/4	16.5	64 1/2	30/35	60/90	--	1000	66

DEVIATION RECORD

1° @ 319'
3/4° @ 864'
1/2° @ 1359'
1/4° @ 1978'
1/4° @ 2846'
1/2° @ 3853'
3/4° @ 4200'
1° @ 5998'

FORMATION LOG TOPS

Formation	Depth	Subsea	Sample Top	Ft. High/Low to Prognosis
X Bentonite	5849'	- 717'	5850'	4' High
Graneros	5852'	- 720'	5854'	---
D Sand	5947'	- 815'	5945'	Flat
Huntsman	5961'	- 829'	5961'	---
J Silt	5982'	- 850'	5990'	10' High
J Sand	5986'	- 854'	5998'	13' High
Skull Creek	6124'	- 992'	6128'	---

LITHOLIGIC SUMMARY

UPPER CRETACEOUS

Graneros Shale

(5852-5947, 95')

The Graneros section penetrated was a medium grey shale, dark grey in part, blocky, splintery, firm, moderately well indurated, siliceous to slightly calcareous, carbonaceous in part, arenaceous in part, earthy to subwaxy with abundent pyrite and numerous bentonite interbeds.

D Sandstone

(5947-5961, 14')

The D Sand at this location was not well developed and overall very tight. The actual D Sand description was as follows: sandstone, translucent, clear, light grey, very fine grained, occasionally fine grained, grading to siltstone in the lower section, subrounded to subangular, firm to hard, moderately well sorted, siliceous, glauconitic in part, clay filled overall, with poor to occasionally fair porosity, poor permeability and no shows.

Huntsman Shale

(5961-5982, 21')

A medium to dark grey, blocky, splintery, brittle in part, very arenaceous, siliceous, firm to very firm, well indurated, earthy to subwaxy in part shale with abundent pyrite was the dominent lithology of the Huntsman Shale.

LOWER CRETACEOUS

J Siltstone

(5982-5986, 4')

The J silt section penetrated was unusually thin, about one-half the normal interval, and was a light grey, medium grey, tan, brown, poorly sorted, firm to hard, slightly glauconitic, dirty siltstone, grading to a very fine grained sandstone with no shows.

LITHOLOGIC SUMMARY (cont.)

J Sandstone

(5986-6124, 138')

The lower J-1 Sandstone was cored from 6000' to 6041' cut and 34' recovered. The lower 7' of the core lost was predominently a "poker-chip" shale. Core cuttings caught were caught incorrectly and consequently not examined.

The generalized J sand description was: sandstone, fine to very fine grained, subrounded to subangular, slightly calcareous to siliceous, firm, well sorted, micaceous in part, glauconitic in part, overall good porosity with no shows found below the cored interval.

The core itself was not described in detail as the weather was very hot (in excess of 100° F.) and dry and the core was rapidly drying out. Rather, the core was bagged and boxed as quickly as possible to get it to the Reservoirs, Inc. lab for detailed analysis. The core appeared to be an overall fine grained sandstone with numerous shale laminations and shale interbeds as would be indicative of deposition in a low energy environment. Overall porosity and permeability was also lower than might be expected.

The bottom four feet, approximately, did yield bleeding green oil and a strong odor of sweet oil. Due to the apparent lack of sufficently high reservoir quality sandstone, especially a lack of permeability, and the lack of potential oil column thickness, production--if established--would have, in all probability, been uneconomic.

The lower J sand section was of high shale content and overall very dirty.

Skull Creek Shale

(6124-T.D., 46')

The Skull Creek samples observed were a dark grey shale, medium grey in part, fissile, blocky, splintery, brittle, well indurated, firm in part, siliceous, earthy with pyrite.

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C.P.G. 2666

LOG ANALYSIS

Well: CPC #2 Downing 21-29

Location: NE NW 29-T3S-R58W

Date: 7-8-85 Field: Arroyo

Rw & Source: J Sand = .15 (.13 - .19 Range) Champlin

Depth-Fm	ϕ	ϕ_s	ϕ_d	Rw	Temp	Rt	Sw	Q	Remarks
6002-6006 J Sand		--	14%	.15	--	13	69%		X over @ 6001
6030-6038 J Sand		--	16%	.15	--	15	56%		
Total Zone 6000-6036		--	13%	.15	--	Ave. 12	77%		Rt is suppressed by shale content. Overall J Section is high in clay content.
						*Sw calculations clay content.			uncorrected for