

**GEOLOGIC REPORT**

for:

**Anderson Energy, Inc.**

**#1-26H COLBORN**

15-007-22638-01-00

S2 SE NW  
2310 PSL 1980 FEL

ORIGINAL

26-33-124

**RECEIVED**

KANSAS CORPORATION COMMISSION

JUN 29 2001

CONSERVATION DIVISION

Supervised by:  
**XPLORATION SERVICES, INC**  
Wichita, Kansas - USA

# ORIGINAL

## Contents:

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- Geologic Report on the Well
- X Y Schematic Of The Well Path
- Plan View Of The Well Path
- Directional Survey Of The Well Path
- Daily Progress Report Of The Well By Art Merrick, Drilling Engineer
- Plotted Geologic Time And Sample Log

# **XPLORATION SERVICES, INC.**

OIL & GAS PROSPECTS - EVALUATION - DRILLING & COMPLETION SUPERVISION



January 30, 2001

Anderson Energy, Inc.  
1305 E. Waterman, Ste A  
Wichita, Kansas 67211

ORIGINAL

RE: Geologic Report  
#1-26H Colborn  
SHL: 2210' FNL, 1880' FWL  
BHL: 1485' FWL, 957' FNL  
Sec. 26-33s-12w  
Barber County, Kansas

Gentlemen,

The following report is a summary of the drilling operations regarding the above captioned well.

## RECOMMENDATION:

5 1/2" Casing was set into the top of the Mississippi Osage Chert and a 1,034' lateral open hole was drilled to further test the formation for gas.

## GENERAL WELL DATA:

Spud date: 1/3/2001  
Drilling completed: 1/26/2001

Rotary Drilling Contractor: Duke Drilling Co., Rig #2. John Armbruster; Toolpusher  
Workover Rig Contractor: Pratt Well Service  
Horizontal General Contractor: Smith International  
Steering Tool Subcontractor: Gyro-Data  
Drilling Engineer: Art Merrick

Elevations: 1540' KB / Rotary, 1541' Workover Rig. 1638' GL. All drilling operations measured from KB.

Rotary Total Depth: 4908'  
Total Measured Depth: 5940'  
Open hole Length: 1,034'

Casing: Surface; New 85/8" 20# set at 310' with 205 sxs 60/40 Pozmix, 3%CC, 2% gel by Acid Services, LLC.

Production: 120 jts. 5 1/2" 15.50# set at 4906' w/ 240 sxs Class A

Mud Program: Fresh Chemical Gel Low Solids Displacement by MudCo, Inc. Brad Bortz, Engineer

Geologic Program: 1' drilling time from 3400', 10' Dry samples from 3450'. 10' Wet samples from 3450'.

Open Hole Logs: Gamma Ray while logging from 4250 – 4908'

Hole Deviation(s): 3/4 deg. @ 310', 1/4 deg @ 1520'.

ORIGINAL

See attached Exhibit A for complete hole deviation surveys.

Formation Test(s): There were no DST's taken.

#### GEOLOGIC DATA:

Log KB Tops: Formation	TVD	Datum	Position**
KANWAKA SH.	3533	-1993	-6'
ELGIN SD.	3552	-2012	+16'
BASE ELGIN SD.	3681	-2141	-18'
HEEBNER SH.	3751	-2211	-4'
HASKELL LS.	3929	-2389	-2'
STARK SH.	*4376	-2836	-3'
HUSHPUCKNEY SH.	*4396	-2856	+3'
BASE KANSAS CITY GP.	*4430	-2890	-1'
MARMATON LS.	*4438	-2898	0
ALTAMONT LS.	*4468	-2925	0
PAWNEE LS.	*4543	-3003	0
CHEROKEE SH.	*4584	-3044	-5'
MISSISSIPPI UNCONFORMITY	*4609	-3069	-7'
MISSISSIPPI OSAGE CHERT	*4624	-3084	-22'
BASE OSAGE CHERT	4652	-3111	-10'

\* Log Top from gamma during build portion of hole; 4249 – 4908'

\*\* Structural position compared to Sinclair #1 L.T. Groendyke, CSW 26-33s-12w

#### ANALYSIS OF SHOWS:

Due to the extensive section of Mississippi Chert cut by the lateral, sample descriptions and shows are detailed on the accompanying geologist plotted time and sample log.

#### General Overview:

Anderson Energy's #1-26H Colborn was the first lateral ever drilled in Barber County and the first known horizontal well targeting gas from the Mississippi Osage Chert in the state. As such, there was no established parameters for design, implementation or interpretation of results. The Colborn #1-26 well design proved to be satisfactory with only minor technical problems occurring during the drilling. Some unexpected equipment failures with the wireline steering tools led to the only serious delays that caused the well cost to exceed the estimated amount. The total open hole length of 1,034' just slightly exceeded the targeted distance, however, if the aforementioned steering tool problems had not occurred, the well may have been able to meet the absolute pipe restricted length of 1,500 feet.

From a geological perspective, there were a number of changes that were instituted while drilling to compensate for unexpected occurrences. The first was a change in the intercept point for the casing and top of chert porosity. The prospect predicted a broad ridge, dipping south – southwest, to underlie the Colborn lateral and intersect the Sinclair #1 L.T. Groendyke to the south. As it turned out, a narrow(?) channel separating the Sinclair #1 L.T. Groendyke and Sinclair #1 Bevans from another high area to the east occupied by the Carter #1 Long cut directly under the #1-26H Colborn. As a result the top of the

Mississippi porosity was cut away and replaced by thicker than normal sequence of Pennsylvanian shales and limes and a thick section of erosional Mississippi (possibly Pennsylvanian Conglomerate). This in turn caused the top of the porosity to be 22 feet low compared to the #1 L.T. Groendyke. The possibility of continued drilling across the channel to intercept the porosity on "the other side" was considered but since many wells have produced from datum's as low or lower in the immediate area, it was felt that this would eliminate some amount of potentially productive chert. The decision was made to steer the well down to intercept the porosity. This pushed the casing point out from the vertical approximately 65ft. to 444 feet.

After casing was set a new well plan was formulated to turn the well northwest in hope of climbing back up the ridge and at the same time drill down into the chert to find better porosity as the upper portion of the chert porosity in this part of the hole was poorly developed. The well was inclined at a low angle at this point, 83 to 85 degrees which only allowed for 3+/- feet of vertical displacement per 30 feet of lateral drilling. The motor was re-oriented straight down to maximize a negative build attitude with the plan to rotate back upwards as soon as the base of the chert was intercepted or a datum of -3120 was reached. Unfortunately, after sliding only 40 feet the base of the chert was reached. The motor had to be rotated for one kelly before re-orienting the bit upwards again. As a result the well cut down deeper into the underling limestone than planned. In all 355 feet of limestone was cut before returning to the chert. After returning to the chert the bit was rotated to build a flat trajectory to the upper portion of the porosity. The plan was to level the well out at approximately -3084. Bedding planes within the chert apparently caused some upward force on the bit as the hole continued to climb even with the bit steered downward. Two slides were necessary to arrest the build and bring the bit down to an attitude consistent with the plan. After only 58 feet of rotating at the planned datum, the well kicked and 10,000# of weight was lost and circulation was became intermittent. The pipe was pulled up and the weight returned. The foam was lightened and circulation was stabilized. No noticeable increase in either water or gas was observed, however, at that time it was dark and the flowline was not run through the gas buster and flared. Several attempts were made to continue drilling but the bit would immediately stall when contacting the formation. It was interpreted that an open fracture had been encountered. Since the wireline steering tools had been inoperable for some time except when the well was blown down and concern that the drill string could become stuck, it was decided to pull out of the hole and lay down drill pipe. Horizontal drilling was suspended at 1,034 feet.

#### Zone Development:

While drilling the Erosional Mississippi from 4736 – 4864 measured depth ((MD) several porosity intervals were encountered. All of these contained gilsonite or dead tarry residue in the pores. Some shows of gas were observed but at this time they do not appear prospective. Casing is currently cemented across this interval.

The open hole lateral can be broken up into three parts; *Nearside Chert*; from the first intercept point at 4864' MD to the base of the chert at 5089' MD, *Mississippi Limestone*; from the base of the chert at the near side to the base of the chert at the far side, 5444' MD and *Farside Chert*; from that point to RTD at 5940'. The first interval is 225 feet in length, the second 355 feet and the third segment of 496 feet. Due to sampling problems at the beginning of the nearside chert interval sample description is limited.

Approximately 34 feet of drilling porosity was encountered from 4908 – 4986 MD before the bit began to degrade and the drilling time was not representative beyond that point. Shows were mostly dark brown oil stain and some black asphaltic residue. Occasional gas bubbles were seen but due to the very fine cuttings and the foaming agent adhering to the cuttings, it was difficult to make accurate judgments as to gas in the rocks. One good break from 4969 – 85 MD did have a marked improvement in shows and oil was observed on the pit and a light vent of gas noted during a connection. From this point to 5060' MD the porosity seen in sample was only 20 – 30% by volume being of the white and gray mottled tripolitic type. Shows were seen throughout but mostly dark brown to black heavy oil stain or asphaltic residue. A 26 foot break occurred just prior to intercepting the limestone. Shows were much as above, however. After cutting 10 feet of the *limestone* there was another drilling break from 5098 to 5124 MD. Good fine intercrystalline porosity was noted in the cherty limestone and was accompanied by probably the best oil

shows in the well. Drilling breaks continued intermittently through the limestone and all samples that had porosity showed dark staining of some degree. Some of these intervals were quite cherty. This interval compares very closely to an interval from 4575' MD (-3131) to 4604' MD (-3160) in the Skelly #1 L.T. Groendyke (SW NE NE 26-33s-12w). A very good drilling break was encountered from 5444 - 69 MD as the well re-entered the *farside chert*. The poor sample representation was thought to be caused by the very fine light porous chert being carried into the pit by the foam and not settling out in the sample bucket. The small amount seen did have good tan tripolitic porosity. As the well continued upwards through the *farside chert* many drilling breaks were noted. Shows varied as on the nearside ranging from dead flakey oil to tan stain. The shows were actually much more varied than the chert indicating the real possibility of a myriad of small compartments. As the well neared the upper part of the chert the penetration rate slowed and the chert began to look much like what was observed around the casing point, mostly; dense white, opaque to clear, yellow and pale blue green sharp and fresh. At this point attempts were made to steer the well back down. By 5895' MD the well was turning down slightly and encountered some well developed dolomitic chert. Although the samples were extremely fine, it was apparent that much of the porosity had light tan gas stain. Bright spotted to full yellow white fluorescence was also observed for the first time. Unfortunately, after cutting 45 feet of this zone the pressure kick occurred and the bit locked up and drilling was terminated. It will be necessary to determine prior to completion whether this kick was caused by water and whether this part of the hole will need to be plugged back if the inflow is too great.

#### Conclusions;

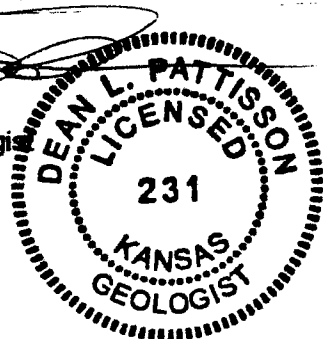
For a first time effort I believe the well went, technically, very well. The small, though costly, delays could easily be corrected on the next well and additional modifications to the drilling program and equipment could certainly save considerable time and money.

As for the economic success of the well, it will remain to be seen how it reacts to clean up and possibly stimulation. The expectation of attaining commercial natural flow rates while drilling may have been unrealistic and certainly do not degrade the potential of the well. Communication with service companies, other oil companies and reviewing published articles dealing with horizontal gas wells indicates that the vast majority of these wells require some clean up or stimulation to bring about commercial flow rates. Given the considerable amount of shows observed while drilling the lateral portion of the well, I am optimistic that the well will respond favorably to treatment. Without more quantitative methods for locating the best intervals for stimulation it is recommended that all of the chert zone and the upper break of the nearside limestone be at least cleaned up and swab tested. At this point, if results are encouraging, a temperature log might be run to identify specific zones for additional stimulation.

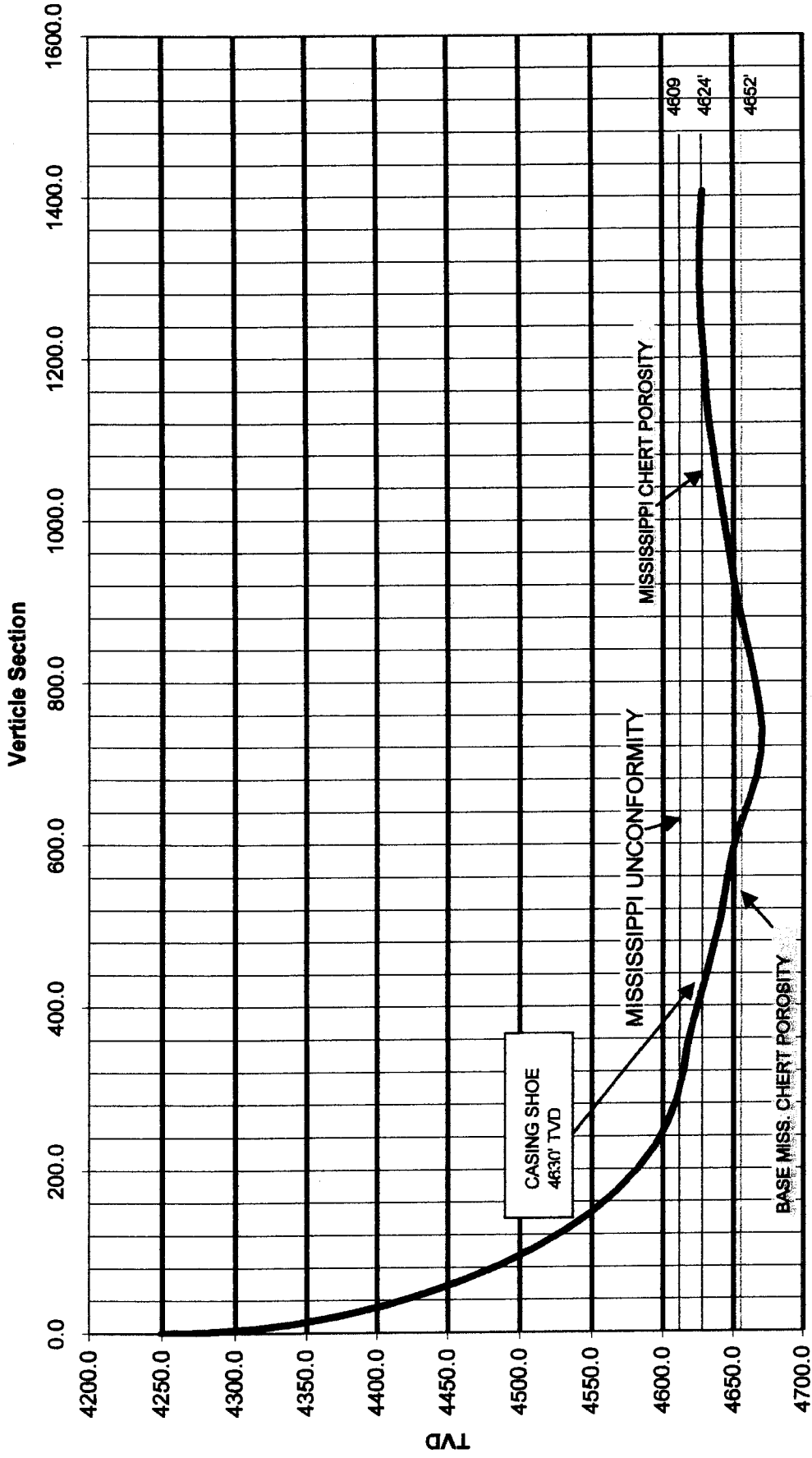
Respectfully submitted,

Xploration Services, Inc.

Dean Pattison  
Consulting Geologist



Colborn 1-26H



1957 2,000 MISS

123,223

BACHUS BACHUS  
3A LONG MCKENNA  
1975-1956 7,8 MIS

PET INC  
1D LONG  
1957

26

SKELLY 1  
GROENDYCKE  
1956

COLBORN

53,266

EAGLE 1  
LONG 1,000 MISS

AURORA 1A  
LONG  
1955

108,569

CARTER 1  
LONG 10,000 MISS

AEI  
1-26H  
COLBORN

2000

1,161,039  
SINCLAIR

L.T.GROENDYCKE  
1963 7,600 MISS

567,587  
SINCLAIR

BEVANS 1  
1964 5,750 MISS

HUMMON 1  
ELMA  
1984

181,924  
SINCLAIR  
1 UNIT  
GROENDYCKE  
1963 734 MISS

260,807  
SINCLAIR

GROENDYCKE  
1963 4,260 MISS

ANDERSON ENERGY, INC.  
 COLBORN #1-26H  
 BARBER CO., KANSAS  
 DUKE DRILLING CO., INC. #2  
 1206-024427

Part. Sect. Dir. = N .0000 E  
 Calculations using the Radius of Curvature Method

As. Depth	Hole Ang.	T.V.D.	V. S. Dist.	Hole Dir.	Total Lat.	Coordinates Dep.	D. L. Sev.
149	.00	4249.00	.00	Vertical	.00	.00	.00
156	1.10	4256.00	.05	N38.70W	.05 N	.04 W	15.71
188	5.80	4287.93	1.78	N11.20W	1.78 N	.85 W	15.57
117	10.30	4316.64	5.78	N 8.10W	5.78 N	1.53 W	15.59
148	15.00	4346.88	12.52	N 5.90W	12.52 N	2.35 W	15.24
179	19.80	4376.45	21.75	N 4.20W	21.75 N	3.17 W	15.57
111	24.90	4406.04	33.89	N 2.80W	33.89 N	3.91 W	16.02
142	29.50	4433.60	48.05	N 2.00W	48.05 N	4.51 W	14.89
174	33.90	4460.82	64.85	N 1.70W	64.85 N	5.05 W	13.76
104	37.70	4485.15	82.39	N 1.60W	82.39 N	5.55 W	12.67
535	42.60	4508.84	102.36	N 2.40W	102.36 N	6.25 W	15.89
566	47.70	4530.69	124.31	N 2.30W	124.31 N	7.15 W	16.45
597	52.90	4550.49	148.13	N 2.30W	148.13 N	8.11 W	16.77
528	58.70	4567.90	173.75	N .80W	173.75 N	8.80 W	19.13
558	63.80	4582.33	200.04	N .60W	200.04 N	9.12 W	17.01
589	69.80	4594.54	228.52	N .60W	228.52 N	9.42 W	19.35
718	74.50	4603.42	256.12	N .30W	256.12 N	9.64 W	16.24
748	79.80	4610.09	285.35	N .30E	285.35 N	9.64 W	17.77
782	84.50	4614.73	319.03	N .10W	319.03 N	9.58 W	13.87
812	85.10	4617.45	348.90	N 1.10E	348.90 N	9.32 W	4.46
843	80.30	4621.39	379.64	N .70E	379.64 N	8.84 W	15.54
874	80.50	4626.56	410.20	N 1.00E	410.20 N	8.38 W	1.15
910	82.60	4631.85	445.80	N 1.00E	445.80 N	7.76 W	5.83
941	81.20	4636.22	476.47	N 3.90W	476.47 N	8.54 W	16.29
971	83.00	4640.34	506.01	N 8.20W	506.01 N	11.67 W	15.41
002	85.20	4643.53	536.31	N13.00W	536.31 N	17.34 W	16.96
034	85.00	4646.26	567.07	N17.40W	567.07 N	25.70 W	13.71
066	81.60	4649.99	597.20	N19.60W	597.20 N	35.78 W	12.63
097	79.20	4655.16	625.86	N21.10W	625.86 N	46.41 W	9.09
129	79.10	4661.19	655.09	N22.00W	655.09 N	57.95 W	2.78
160	81.90	4666.30	683.25	N23.80W	683.25 N	69.85 W	10.70
192	86.50	4669.54	712.35	N24.00W	712.35 N	82.74 W	14.39
224	91.70	4670.04	741.48	N24.80W	741.48 N	95.95 W	16.44
255	94.70	4668.31	769.68	N23.80W	769.68 N	108.69 W	10.20
287	96.00	4665.33	798.88	N23.40W	798.88 N	121.44 W	4.25

ANDERSON ENERGY, INC.  
 COLBORN #1-26H  
 BARBER CO., KANSAS  
 DUKE DRILLING CO., INC. #2  
 1206-024427

Vert. Sect. Dir. = N .0000 E  
 Calculations using the Radius of Curvature Method

Meas. Depth	Hole Ang.	T.V.D.	V. S. Dist.	Hole Dir.	Total Lat.	Coordinates Dep.	D. L. Sev.
4249	.00	4249.00	.00	Vertical	.00	.00	.00
4256	1.10	4256.00	.05	N38.70W	.05 N	.04 W	15.71
4288	5.80	4287.93	1.78	N11.20W	1.78 N	.85 W	15.57
4317	10.30	4316.64	5.78	N 8.10W	5.78 N	1.53 W	15.59
4348	15.00	4346.88	12.52	N 5.90W	12.52 N	2.35 W	15.24
4379	19.80	4376.45	21.75	N 4.20W	21.75 N	3.17 W	15.57
4411	24.90	4406.04	33.89	N 2.80W	33.89 N	3.91 W	16.02
4442	29.50	4433.60	48.05	N 2.00W	48.05 N	4.51 W	14.89
4474	33.90	4460.82	64.85	N 1.70W	64.85 N	5.05 W	13.76
4504	37.70	4485.15	82.39	N 1.60W	82.39 N	5.55 W	12.67
4535	42.60	4508.84	102.36	N 2.40W	102.36 N	6.25 W	15.89
4566	47.70	4530.69	124.31	N 2.30W	124.31 N	7.15 W	16.45
4597	52.90	4550.49	148.13	N 2.30W	148.13 N	8.11 W	16.77
4628	58.70	4567.90	173.75	N .80W	173.75 N	8.80 W	19.13
4658	63.80	4582.33	200.04	N .60W	200.04 N	9.12 W	17.01
4689	69.80	4594.54	228.52	N .60W	228.52 N	9.42 W	19.35
4718	74.50	4603.42	256.12	N .30W	256.12 N	9.64 W	16.24
4748	79.80	4610.09	285.35	N .30E	285.35 N	9.64 W	17.77
4782	84.50	4614.73	319.03	N .10W	319.03 N	9.58 W	13.87
4812	85.10	4617.45	348.90	N 1.10E	348.90 N	9.32 W	4.46
4843	80.30	4621.39	379.64	N .70E	379.64 N	8.84 W	15.54
4874	80.50	4626.56	410.20	N 1.00E	410.20 N	8.38 W	1.15
4910	82.60	4631.85	445.80	N 1.00E	445.80 N	7.76 W	5.83
4941	81.20	4636.22	476.47	N 3.90W	476.47 N	8.54 W	16.29
4971	83.00	4640.34	506.01	N 8.20W	506.01 N	11.67 W	15.41
5002	85.20	4643.53	536.31	N13.00W	536.31 N	17.34 W	16.96
5034	85.00	4646.26	567.07	N17.40W	567.07 N	25.70 W	13.71
5066	81.60	4649.99	597.20	N19.60W	597.20 N	35.78 W	12.63
5097	79.20	4655.16	625.86	N21.10W	625.86 N	46.41 W	9.09
5129	79.10	4661.19	655.09	N22.00W	655.09 N	57.95 W	2.78
5160	81.90	4666.30	683.25	N23.80W	683.25 N	69.85 W	10.70
5192	86.50	4669.54	712.35	N24.00W	712.35 N	82.74 W	14.39
5224	91.70	4670.04	741.48	N24.80W	741.48 N	95.95 W	16.44
5255	94.70	4668.31	769.68	N23.80W	769.68 N	108.69 W	10.20
5287	96.00	4665.33	798.88	N23.40W	798.88 N	121.44 W	4.25

ANDERSON ENERGY, INC.  
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 1206-024427

Vert. Sect. Dir. = N .0000 E

Calculations using the Radius of Curvature Method

eas. epth	Hole Ang.	T.V.D.	V. S. Dist.	Hole Dir.	Total Lat.	Coordinates Dep.	D. L. Sev.
5318	96.30	4662.00	827.21	N23.00W	827.21 N	133.59 W	1.61
5350	97.50	4658.16	856.43	N23.20W	856.43 N	146.05 W	3.80
5380	96.90	4654.40	883.90	N22.10W	883.90 N	157.51 W	4.15
5412	94.70	4651.17	913.37	N22.30W	913.37 N	169.54 W	6.90
5443	95.30	4648.46	941.91	N22.60W	941.91 N	181.33 W	2.16
5475	94.70	4645.68	971.33	N22.70W	971.33 N	193.61 W	1.90
5507	94.60	4643.08	1000.84	N21.90W	1000.84 N	205.71 W	2.51
5539	94.70	4640.49	1030.44	N21.80W	1030.44 N	217.58 W	.44
5571	94.20	4638.00	1060.10	N21.50W	1060.10 N	229.35 W	1.82
5602	94.60	4635.63	1088.90	N21.00W	1088.90 N	240.55 W	2.06
5634	94.80	4633.00	1118.77	N20.10W	1118.77 N	251.75 W	2.87
5665	92.00	4631.17	1147.76	N20.80W	1147.76 N	262.56 W	9.31
5697	91.80	4630.10	1177.66	N20.80W	1177.66 N	273.92 W	.63
5730	92.60	4628.84	1208.67	N18.90W	1208.67 N	285.11 W	6.24
5762	91.70	4627.64	1238.89	N19.30W	1238.89 N	295.58 W	3.08
5794	91.20	4626.83	1269.03	N19.80W	1269.03 N	306.28 W	2.21
5825	90.00	4626.50	1298.16	N20.20W	1298.16 N	316.88 W	4.08
5857	90.20	4626.45	1328.23	N19.80W	1328.23 N	327.83 W	1.40
5884	88.70	4626.71	1353.62	N20.00W	1353.62 N	337.02 W	5.60
5912	88.20	4627.46	1379.62	N23.40W	1379.62 N	347.37 W	12.27

Projection to TD.

5940	88.20	4628.34	1405.30	N23.40W	1405.30 N	358.48 W	.00
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Bottom Hole Closure 1450.31 at N 14.3104 W

Depth 310 Footage 310 Rotating Hours 4.5 Proposed TD 5480

**Present Operation** Waiting on cement.

<b>Time 1</b>	<b>Time 2</b>	<b>Hours</b>	<b>Operation</b>
14:45	17:00	2.25	Rig up Duke Drilling rig 4
17:00	21:30	4.50	Drill 12 1/4" hole to 310'.
21:30	22:15	0.75	Jet cellar, DSH and trip out with bit.
22:15	23:45	1.50	Rig up and run 8 5/8" casing. Ran 7 jts 8 5/8 20#, tallied 298.58 and set at 309'.
23:45	0:30	0.75	Cement casing with 205 sx 60/40 pos with 3% CC, 2% gel. Plug down 1/4/00 12:30 AM. Cement circulated.
0:30	6:45	6.25	Wait on cement.

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*Merrick Consulting Rt. 1 Box 80 Haviland, KS. 67059  
(316)672-5016,*

**Name**

**Lease & Well**      **Colborn 1-26H**      ID colborn103  
**Date**                **1/6/01**  
**Report No**                **3**  
**County, State** Barber                **AFE No**  
**Days on Well**      **3**    **Rig Duke 4**                **Supervisor Art Merrick**  
**Depth 1705 Footage 1927 Rotating Hours 6.25 Proposed TD 5480**

**Present Operation Working on motor #2 fan hub.**

<b>Time 1</b>	<b>Time 2</b>	<b>Hours</b>	<b>Operation</b>
6:45	14:00	7.25	Pull out of hole and wait on mud pump repairs.
14:00	14:45	0.75	Work on mud pump.
14:45	21:30	6.75	Work on mud pump.
21:30	22:30	1.00	Run in hole.
22:30	22:45	0.25	Work on mud pump.
22:45	23:30	0.75	Tighten bolts on hydril, check rig, run in hole with 4 stands and ream to 1705
23:30	5:45	6.25	Drill to 1927.
5:45	6:45	1.00	Pull 2 stands work on pump, work on fan hub.

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**Name**

**Lease & Well**      **Colborn 1-26H**      **ID** colborn104  
**Date**                      **1/7/01**  
**Report No**                      **4**  
**County, State** Barber                      **AFE No**  
**Days on Well**      **4**      **Rig** Duke 4      **Supervisor** Art Merrick  
**Depth** 2659 **Footage** 732      **Rotating Hours** 22.5      **Proposed TD** 5480

**Present Operation** Drilling ahead.

<b>Time 1</b>	<b>Time2</b>	<b>Hours</b>	<b>Operation</b>
6:45	8:00	1.25	Replace fan hub, motor #2.
8:00	14:45	6.75	Drill to 2139
14:45	22:45	8.00	Drill to 2400
22:45	23:15	0.50	Drill ahead
23:15	23:30	0.25	Check rig
23:30	6:45	7.25	Drill to 2659

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Lease & Well      Colborn 1-26H      ID colborn105  
Date                1/8/01  
Report No                5  
County, State Barber      AFE No  
Days on Well      5      Rig Duke 4      Supervisor Art Merrick  
Depth 3313 Footage 654 Rotating Hours 23.25 Proposed TD 5480

**Present Operation Drilling ahead**

Time 1	Time2	Hours	Operation
6:45	14:45	8.00	Drilling to 2930
14:45	22:45	8.00	Drilling to 3125
22:45	23:30	0.75	Drilling
23:30	23:45	0.25	Check rig
23:45	5:00	5.25	Drilling
5:00	5:30	0.50	Jet cellar and mix mud.
5:30	6:45	1.25	Drilling to 3313

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**Lease & Well**      **Colborn 1-26H**      ID colborn106  
**Date**                      **1/9/01**  
**Report No**                      **6**  
**County, State** Barber                      **AFE No**  
**Days on Well**      **6**    **Rig Duke 4**                      **Supervisor Art Merrick**  
**Depth 3935 Footage 622 Rotating Hours**                      **22.5**                      **Proposed TD 5480**

**Present Operation Drilling ahead.**

Time 1	Time 2	Hours	Operation
6:45	7:15	0.50	Drilling
7:15	7:30	0.25	Service rig.
7:30	8:30	1.00	Change out radiator fan on motor #2.
8:30	14:45	6.25	Drilling to 3495
14:45	22:45	8.00	Drilling to 3740.
22:45	0:01	1.25	Drilling.
0:01	0:15	0.25	Check rig.
0:15	6:45	6.50	Drilling to 3935

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**Lease & Well**      **Colborn 1-26H**      ID colborn107  
**Date**                **1/10/01**  
**Report No**                **7**  
**County, State** Barber                **AFE No**  
**Days on Well**      **7**    **Rig Duke 4**                **Supervisor Art Merrick**  
**Depth 4249 Footage 314 Rotating Hours 16 Proposed TD 5480**

**Present Operation Running in hole with directional tools.**

Time 1	Time2	Hours	Operation
6:45	14:45	8.00	Drilling to 4105.
14:45	22:45	8.00	Drill to 4249
22:45	0:15	1.50	Circulate to clean hole.
0:15	2:15	2.00	Lay down 20 jts drill pipe, pull out of hole, lay down bit collar.
2:15	4:00	1.75	Change out swivel.
4:00	5:15	1.25	Pick up motor and adjust to 2.25 degrees. Orient motor with UBHO sub.
5:15	6:45	1.50	Run in hole with motor, picked up rental drill pipe. Had trouble getting bent motor through 8 5/8 casing. Had to work first two joints, next 4 jts had to be worked or pushed through. Hook up kelly and test run motor, ran OK.

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<b>Lease &amp; Well</b>	<b>Colborn 1-26H</b>	<b>ID</b>	colborn109
<b>Date</b>	<b>1/12/00</b>		
<b>Report No</b>	<b>9</b>		
<b>County, State</b>	Barber	<b>AFE No</b>	
<b>Days on Well</b>	9	<b>Rig</b>	Duke 4
<b>Supervisor</b>	Art Merrick		
<b>Depth</b>	4532	<b>Footage</b>	175
<b>Rotating Hours</b>			12.75
<b>Proposed TD</b>	0		

**Present Operation** Slide drilling, building curve.

<b>Time 1</b>	<b>Time 2</b>	<b>Hours</b>	<b>Operation</b>
6:45	14:45	8.00	Slide drill from 4357 to 4472
14:45	17:30	2.75	Slide drill from 4472 to 4508.
17:30	21:45	3.25	Trip out of hole with motor, unable to maintain adequate build rate with motor setting.
21:45	22:45	1.00	Adjust motor from 2.25 degrees to 2.5 degrees.
22:45	1:45	3.00	Trip in with motor, broke circulation three times while running in hole.
1:45	2:30	0.75	Attempt to start motor. Had to repair bleed off valve on pump.
2:30	3:30	1.00	Run in wet connect.
3:30	3:45	0.25	Continue in hole. Set down 60' off bottom.
3:45	4:45	1.00	Pick up kelly and wash down last two joints.
4:45	6:45	2.00	Drill from 4508 to 4532.

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Lease & Well      Colborn 1-26H      ID colborn110  
Date                1/13/00  
Report No            10  
County, StateBarber      AFE No  
Days on Well      10    Rig Duke 4      Supervisor Art Merrick  
Depth 4780 Footage 248    Rotating Hours      24      Proposed TD 4800

**Present Operation**

Time 1	Time2	Hours	Operation
6:45	14:45	8.00	Slide drill from 4532 to 4614
14:45	22:45	8.00	Slide drill from 4614 to 4692
22:45	6:45	8.00	Slide drill from 4692 to 4780.

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**Lease & Well**      **Colborn 1-26H**      **ID** colborn112  
**Date**                      **1/15/01**  
**Report No**                      12  
**County, State** Barber                      **AFE No**  
**Days on Well**    12    **Rig** Duke 4                      **Supervisor** Art Merrick  
**Depth**    4908 **Footage**    31    **Rotating Hours**                      1.75                      **Proposed TD**                      0

**Present Operation** Moving drilling rig off.

Time 1	Time 2	Hours	Operation
6:45	8:00	1.25	Circulate for samples at 4877.
8:00	8:15	0.25	Check rig.
8:15	10:00	1.75	Slide drill from 4877 to 4908
10:00	11:30	1.50	Circulate for samples at 4908
11:30	12:45	1.25	Short trip up into vertical hole.
12:01	3:30	3.50	Run 120 joints 5 1/2 15.5# used casing and set at 4907. Had shoe on bottom, 18' shoe joint, and float collar. Rigid centralizers on joints 2, 4 and 6. Bow spring centralizers on joints 10, 12, 14, 16, 19 and 22. Casing went through curve with very little drag.
12:45	14:45	2.00	Circulate to clean hole at 4908.
14:45	15:30	0.75	Stand back 10 stands in derrick.
15:30	16:15	0.75	Rig up to lay down drill pipe.
16:15	22:45	6.50	Lay down drill pipe, collars and motor.
22:45	0:01	1.25	Rig up to run 5 1/2" casing.
3:30	3:45	0.25	Rig up Acid Services.
3:45	4:15	0.50	Circulate hole.
4:15	5:30	1.25	Cement 5 1/2" casing using: 12 bbls mud flush, 25 sx poz mix scavenger cement mixed 12 #/gal, followed by 215 sx AA2 cement with .5#/sx FLA322, .1#/sx defoamer, 5.3#/sx gilsonite, and 4.64#/sx salt. Displaced to shoe. Had good returns through out. Plug bumped. Plug down at 5:30. Checked for flow back, float holding good.
5:30	6:45	1.25	Rig down Duke Drilling.

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Lease & Well      Colborn 1-26H      ID colborn114  
Date                1/17/01  
Report No            14  
County, State Barber      AFE No  
Days on Well    14    Rig Pratt Well 25      Supervisor Art Merrick  
Depth    4908 Footage    0    Rotating Hours      Proposed TD    6334

Present Operation Preparing to unload hole at approximately

Time 1 Time2 Hours Operation

8:00	22:00	2.00	Rig up gate valve, flow T, BOP with blind rams and pipe rams and Hydril BOP. Rig up accumulator. Rig up stripping head. Rig up power swivel.
10:00	14:00	4.00	Rig up air foam flow line to pit with muffler on end. Move in air foam unit, spot in logging truck, spot in frac tank and begin filling it with fresh city water.
14:00	5:00	3.00	Rig up gas buster with igniter. Finished at 9:30 PM.
17:00	20:30	3.50	Run 70 jts 2 7/8 S-135 AOH drill pipe, 10 jts 3 1/2 collars and 6 jts drill pipe, pull 6 jts out to drain water from head and shut down for night.

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**Lease & Well**      **Colborn 1-26H**      ID colborn115  
**Date**                      **1/18/01**  
**Report No**                      15  
**County, State** Barber                      **AFE No**  
**Days on Well**    15    **Rig** Pratt Well 25                      **Supervisor** Art Merrick  
**Depth**    4974 **Footage**    66    **Rotating Hours**                      5                      **Proposed TD**    6334

**Present Operation Drilling ahead at 4974**

Time 1	Time2	Hours	Operation
8:00	8:30	0.50	Start up rig and run 3 joints of drill pipe.
8:30	9:00	0.50	Shut in BOP and test to 1500 psi. had slight drip and tighten up bolts on one flange, test held OK.
9:00	10:00	1.00	Unload well with air and foam from 2500'.
10:00	11:30	1.50	Pick up 2 7/8 drill pipe and continue in hole.
11:30	12:30	1.00	Rig up power swivel and stripper head.
12:30	14:00	1.50	Unload hole and circulate around with air foam
14:00	16:00	2.00	Tag cement at 4878. Drill cement and insert, found insert at 4882, drilled cement and found shoe at 4903. Drilled into formation at 4905, drilled to 4907.
16:00	16:15	2.00	Circulate clean and load hole with foam.
16:15	19:00	2.75	Pull out of hole with bit.
19:00	20:15	1.25	Pick up 4 3/4" Reed HP53A bit, 3 3/8" motor and adjust to 1.5 degrees. Align orienting sub. Pick up 3 non-mag drill collars.
20:15	22:00	1.75	Run in hole to 4195.
22:00	23:15	1.25	Rig up Gyro data. Run steering tools in the hole.
23:15	0:01	0.75	Continue in hole to TD.
0:01	1:30	1.50	Rig up power swivel and stripper head.
1:30	2:00	0.50	Safety meeting and job discussion.
2:00	7:00	5.00	Drilling ahead from 4908 to 4974.

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**Lease & Well**      **Colborn 1-26H**      ID colborn116  
**Date**                      **1/19/01**  
**Report No**                      **16**  
**County, State** Barber                      **AFE No**  
**Days on Well**    16    **Rig** Pratt Well 25                      **Supervisor** Art Merrick  
**Depth**    5050 **Footage**    65    **Rotating Hours**                      11.5                      **Proposed TD**    6334

**Present Operation Drilling ahead.**

Time 1	Time2	Hours	Operation
7:00	8:00	1.00	Drill from 4974 to 4985.
8:00	8:45	0.75	Lost communications with steering tool. Lay down swivel and pull drill pipe to wet connect.
8:45	11:30	2.75	Replace wet connect and steering tools and run in hole.
11:30	13:00	1.50	Run back in hole, had to wash down one joint in curve.
13:00	13:30	0.50	Pick up swivel and unload hole. Lost communications with steering tool.
13:30	14:00	0.50	Lay down wet connect probe and work on probe. Tested probe, found steering tool failure.
14:00	14:45	0.75	Pull drill pipe up to wet connect.
14:45	18:00	1.25	Work on steering tools. Run steering tools and set in wet connect.
18:00	18:45	0.75	Run in hole with drill pipe, no bridges or tight spots.
18:45	19:15	0.50	Pick up swivel and run in wet connect probe.
19:15	20:30	1.25	Unload hole, attempted to unload hole slowly to prevent over agitation of wet connect tools.
20:30	7:00	10.50	Drill from 4985 to 5050

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Lease & Well      Colborn 1-26H      ID colborn118  
Date                1/21/01  
Report No            18  
County, State Barber      AFE No  
Days on Well    18    Rig Pratt Well 25      Supervisor Art Merrick  
Depth    5323 Footage    273    Rotating Hours            23.5      Proposed TD    6334

**Present Operation Drilling ahead.**

Time 1	Time2	Hours	Operation
7:00	10:30	3.50	Drill from 5050 to 5092. Had trouble with ice in wet connect lubricator.
10:30	12:30	2.00	Rotate from 5092 to 5123.
12:30	15:00	2.50	Slide drill with tool face straight up from 5123 to 5154.
15:00	19:30	4.50	Slide drill with tool face straight up from 5154 to 5187.
19:30	21:30	2.00	Slide drill with tool face straight up from 5187 to 5218
22:00	0:30	2.50	Slide from 5250 to 5260 with tool face straight up.. Rotate from 5260 to 5280.
0:30	3:00	2.50	Rotate from 5281 to 5313.
3:00	6:00	3.00	Rotate from 5281 to 5313.
6:00	7:00	1.00	Rotate from 5313 to 5323.

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**Lease & Well**      **Colborn 1-26H**      ID colborn119  
**Date**                      **1/22/01**  
**Report No**                      19  
**County, State** Barber                      AFE No  
**Days on Well**    19    **Rig** Pratt Well 25                      **Supervisor** Art Merrick  
**Depth**    5665 **Footage**    342    **Rotating Hours**                      24.5                      **Proposed TD**    6334

**Present Operation Drilling ahead.**

Time 1	Time2	Hours	Operation
7:00	8:45	1.75	Rotate from 5323 to 5344.
8:45	11:15	2.50	Rotate from 5344 to 5396.
11:15	15:00	3.75	Slide drill from 5376 to 5399. Rotate from 5399 to 5406
15:00	17:45	2.75	Rotate from 5406 to 5437.
17:45	18:30	0.75	Rotate from 5437 to 5469
18:30	20:30	2.00	Rotate from 5469 to 5501.
20:30	22:15	2.25	Rotate from 5501 to 5533
22:15	0:45	2.50	Rotate from 5533 to 5565
0:45	3:00	2.25	Rotate from 5565 to 5597.
3:00	4:30	1.50	Rotate from 5597 to 5628
4:30	6:15	1.75	Slide from 5628 to 5648 and rotate from 5648 to 5660.
6:15	7:00	0.75	Rotate from 5660 to 5665

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**Lease & Well**      **Colborn 1-26H**      ID colborn121  
**Date**                      1/24/01  
**Report No**                      21  
**County, State** Barber                      AFE No  
**Days on Well**    21    **Rig** Pratt Well 25                      **Supervisor** Art Merrick  
**Depth**    5819 **Footage**    97    **Rotating Hours**                      4                      **Proposed TD**    6334

**Present Operation** Drilling ahead.

Time 1	Time 2	Hours	Operation
7:00	8:00	1.00	Found bad connection on drill pipe to non-mag cross over. Drill string had parted and wire line became wedged around pin. All tools below cross over were recovered.
8:00	8:30	0.50	Lay down bad cross-over and drill pipe.
8:30	9:00	0.50	Test and re-orient motor. Check all BHA connections.
9:00	11:15	2.25	Run in hole to wet connect.
11:15	12:15	1.00	Run steering tool and re-head line, set in wet connect.
12:15	13:30	1.25	Continue in hole to TD.
13:30	14:00	0.50	Unload hole.
14:00	15:00	1.00	Rotate from 5722 to 5755.
15:00	16:00	1.00	Attempt to take survey at 5730. Could not get steering tool to work.
16:00	17:00	1.00	Circulate hole and pull up to wet connect.
17:00	1:30	8.50	Pull steering tool and replace. Test on surface, found short in line or tool when under pressure. Continue to re-head each connection and test until short is found.
1:30	2:45	1.25	Run in hole and rig up power swivel
2:45	3:00	0.25	Unload hole.
3:00	5:00	1.00	Rotate from 5755 to 5787.
5:00	7:00	2.00	Rotate from 5787 to 5819. Survey tools working fine.

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**Lease & Well**      **Colborn 1-26H**      ID colborn122  
**Date**                      **1/25/01**  
**Report No**                      22  
**County, State** Barber                      AFE No  
**Days on Well**    22    **Rig Pratt Well** 25                      **Supervisor** Art Merrick  
**Depth**    5940 **Footage**    121    **Rotating Hours**                      10                      **Proposed TD**    6334

**Present Operation** Laying down drill pipe.

Time 1	Time2	Hours	Operation
7:00	9:00	2.00	Slide drill from 5819 to 5834.
9:00	13:00	3.00	Rotate from 5850 to 5882.
13:00	14:45	1.75	Slide drill with tool face down from 5882 to 5900
14:45	16:00	1.25	Rotate from 5900 to 5913.
16:00	18:00	2.00	Rotate from 5913 to 5940.
18:00	19:00	1.00	Lost 10 points of string weight, motor stalling out with 1 point on it, lost partial foam returns, pick up 2 feet, increased soap concentration, stand pipe pressure increased to 1100 psi. Unloaded hole, appears that there was a water influx. Circulate 2 sweeps of heavy foam.
19:00	20:15	1.25	Pull out of hole standing back drill pipe to wet connect.
20:15	21:00	0.75	Pull steering tool and rig down Gyro Data.
21:00	23:59	2.00	Lay down drill pipe and collars. Shut down for night.

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Name

Lease & Well      Colborn 1-26H      ID colborn123  
Date                1/26/01  
Report No            23  
County, State Barber      AFE No  
Days on Well    23    Rig Pratt Well 25      Supervisor Art Merrick  
Depth 5939 Footage    0    Rotating Hours      Proposed TD      0  
Present Operation Well shut in.  
Time 1 Time2 Hours Operation  
7:00 10:00 3.00 Continue to lay down drill pipe, lay down directional tools and bit.  
10:00 12:00 2.00 Run drill pipe out of derrick and lay down same.  
12:00        0.00 Rig down equipment.

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