



WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date Date Reached TD Completion Date or Recompletion Date

API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR. _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 6824

Date	5-27-13	Sec.	27	Twp.	22	Range	11	County	Stafford	State	Ks	On Location		Finish	5:45PM
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Lease **Heyen** Well No. **2-27** Owner **S/Hnto**
 Location **Hudson, Ks -5E to D,E, N, 2 1/2 E**

Contractor **Petromark #2**
 Type Job **Surface**
 To Quality Oilwell Cementing, Inc.
 You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Hole Size **12 1/4"** T.D. **312'** Charge To **Grady Bolding**
 Csg. **8 5/8"** Depth **312'** Street

Tbg. Size Depth City State

Tool Depth The above was done to satisfaction and supervision of owner agent or contractor.
 Cement Left in Csg. **15'** Shoe Joint **15'** Cement Amount Ordered **275** sx **Common 3 1/2 CL**

Meas Line Displace **18 3/4 BLS** **2% Gel 1/2 # Fl. seal**
 EQUIPMENT Common **275**

Pumptrk	15	No.	Cementer			
			Helper	Nick		Poz. Mix
Bulktrk	1	No.	Driver	Chad		Gel. 5
			Driver	Rick		Calcium 10
Bulktrk	p.u.	No.	Driver			Hulls

JOB SERVICES & REMARKS
 Remarks **Cement did Circulate**

Rat Hole Flowseal **137#**

Mouse Hole Kol-Seal

Centralizers Mud CLR 48

Baskets CFL-117 or CD110 CAF 38

D/V or Port Collar Sand

Handling **290**

Mileage

FLOAT EQUIPMENT

Guide Shoe

Centralizer

Baskets

AFU Inserts

Float Shoe

Latch Down

1 - 8 5/8" Basket

Pumptrk Charge **Surface**

Mileage **32**

Signature **Jimmie**

Tax Discount Total Charge

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 7901

Date	6-3-13	Sec.	27	Twp.	22	Range	11	County	Stafford	State	Ks	On Location		Finish	11:45 AM
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Lease Heyen Well No. 2-27 Owner S/Into
Location Hudson, Ks - SE to D.E., 1N, 2&E

Contractor Petromark #2
Type Job Production
To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Hole Size 7 7/8" T.D. 3691' Charge To Grady Bolding
Csg. New 5 1/2" 14# Depth 3683.69' Street

Tbg. Size Depth City State
Tool Depth
The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. 42.15' Shoe Joint 42.15' Cement Amount Ordered 180 sx Q Pro-C 10% Salt 5% KCL
Meas Line Displace 89 BLS Gilsonite - 500 gal mud Clear 48 - 20 BLS KCL

EQUIPMENT
Common 180 pro-c 50
Pumptrk 15 No. Cementer Nick Poz. Mix
Helper

Bulktrk 8 No. Driver Lonnie M. Gel.
Driver
Bulktrk p.u. No. Driver Rick Calcium
Driver

JOB SERVICES & REMARKS
Remarks: total pipe 3688' Halls KCL 2 gal

Rat Hole 30 sx Salt 16
Flowseal

Mouse Hole Kol-Seal 900#

Centralizers 1, 5, 6, 7, 8, 9, 10, 11 Mud CLR 48 500 gal

Baskets CFL-117 or CD110 CAF 38

D/V or Port Collar pipe on bottom, break Sand
Circulation, pump 500 gal mud Clear Handling 205

48, pump to BLS of water, plug Rat Mileage
hook w/ 30 sx Cement, Hook to

5 1/2" Casing + mix 150 sx Cement FLOAT EQUIPMENT
Guide Shoe

Shutdown, wash pump + lines, Released Centralizer 8 turbo's
plug + Displaced with 89 BLS

of water, 8 BLS of displaced Baskets
water had KCL. Released + AFU Inserts

held. Float Shoe 1
Latch Down 1

Lift pressure 700#
Land plug to 1600#

Pumptrk Charge prod Long String
Mileage 32

Signature [Signature] Tax
Discount
Total Charge

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY Grady Bolding Corp. ELEVATION _____
 LEASE Heyen #2-27
 FIELD Sleeper South
 LOCATION TW-SC-NU-SC (1730' EST-1160' FSL)
 SEC 27 TWP 22 RGE 11
 COUNTY Stafford STATE Kansas
 CONTRACTOR Petromark Drilling Co (19#2)
 SPUD 5/25/2013 COMP 6/2/2013
 RTD 3692 LTD 3691
 MUD UP 2800 TYPE MUD Champion displaced
 SAMPLES SAVED FROM 2900 TO _____
 DRILLING TIME KEPT FROM 2900 TO _____
 SAMPLES EXAMINED FROM 2900 TO _____
 GEOLOGICAL SUPERVISION FROM 2975 TO _____
 GEOLOGIST ON WELL Walter Urban's Jim Musgrove

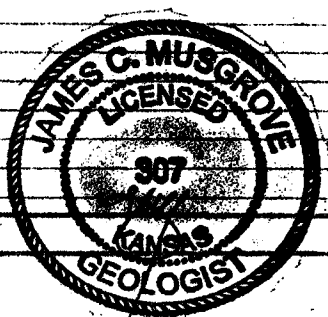
MEASUREMENTS: KB 1794, DF _____, GL 1789
 CASING SURFACE 8 5/8" x 307', PRODUCTION 5 1/2" I.D.
 ELECTRICAL SERVICES BY Pioneer Oil, CUL/COL, MEL & BHS

FORMATION TOPS	LOG	SAMPLES
<u>Anhydrite</u>		<u>Simpson Sand 35%</u>
<u>Basal anhydrite</u>		<u>Arbuckle 362%</u>
<u>Arbuckle</u>		<u>RTD 3691</u>
<u>Toronto</u>		<u>LT D 3692</u>
<u>Doughus</u>		
<u>Barton Lmk</u>		
<u>Vansting</u>		
<u>Base Kansas City</u>		
<u>Conglomerate</u>		
<u>Yolla</u>		
<u>Simpson Sh.</u>		

REMARKS

5 1/2" production casing was set & cemented on the Heyen #2-27.

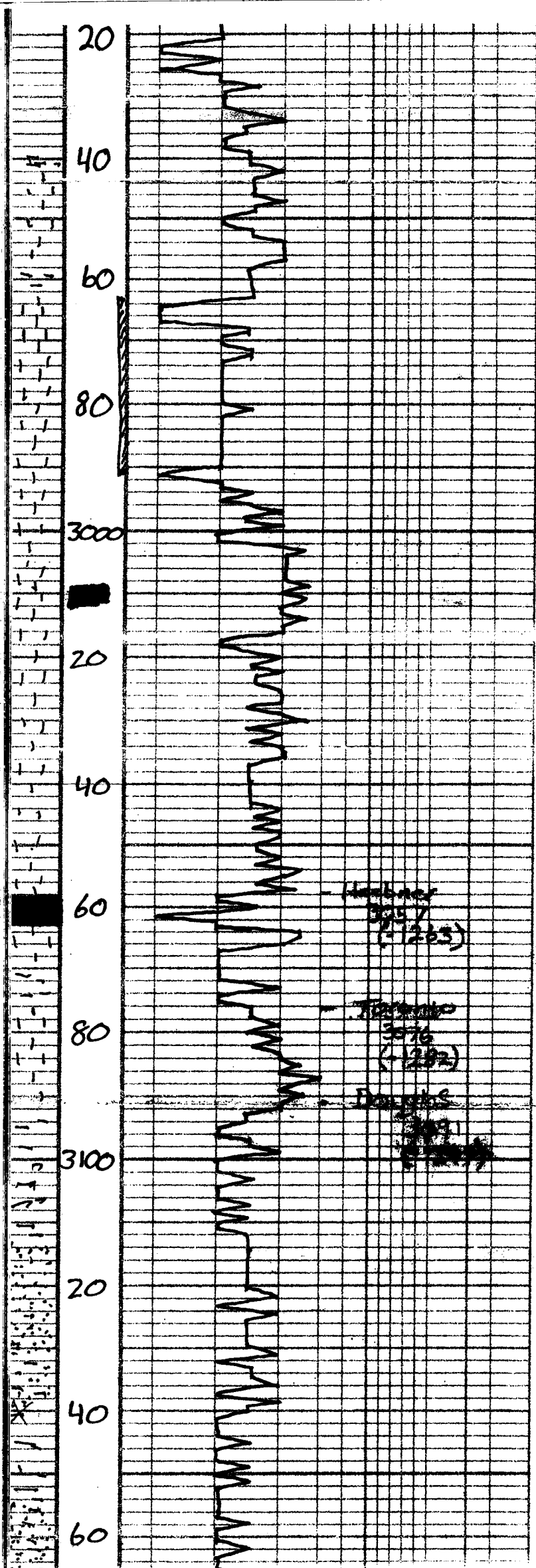
Respectfully submitted,
 James C. Musgrove
 Petroleum Geologist



LEGEND

- Anhydrite
- Salt
- Sandstone
- Shale
- Carb sh
- Limestone
- Ool. Lime
- Chert
- Dolomite

LITHOLOGY	DEPTH	DRILLING TIME (Logarithmic Scale)	SAMPLE DESCRIPTIONS	REMARKS
		5 1 2 3 4 5 10 15 20 30		



L.S. Wht, Cem, Fxl, Dns,
Sh. Blk, Gry, Mar. silty

KB 1794'

L.S. Cem, Tan, Fxl, Few fass, Dns

Sh. Gry, gra, blk,

L.S. Cem, Tan, Fxl, Dns
FEW fass, Poor vis Ⓞ

L.S. Tan, Fxl, Few fass, Dns
Dy

Sh. blk, Gry, greenish, Mar

L.S. Tan, Fxl, Dns, Few vis Ⓞ
Chky.

Blk Carb Sh.

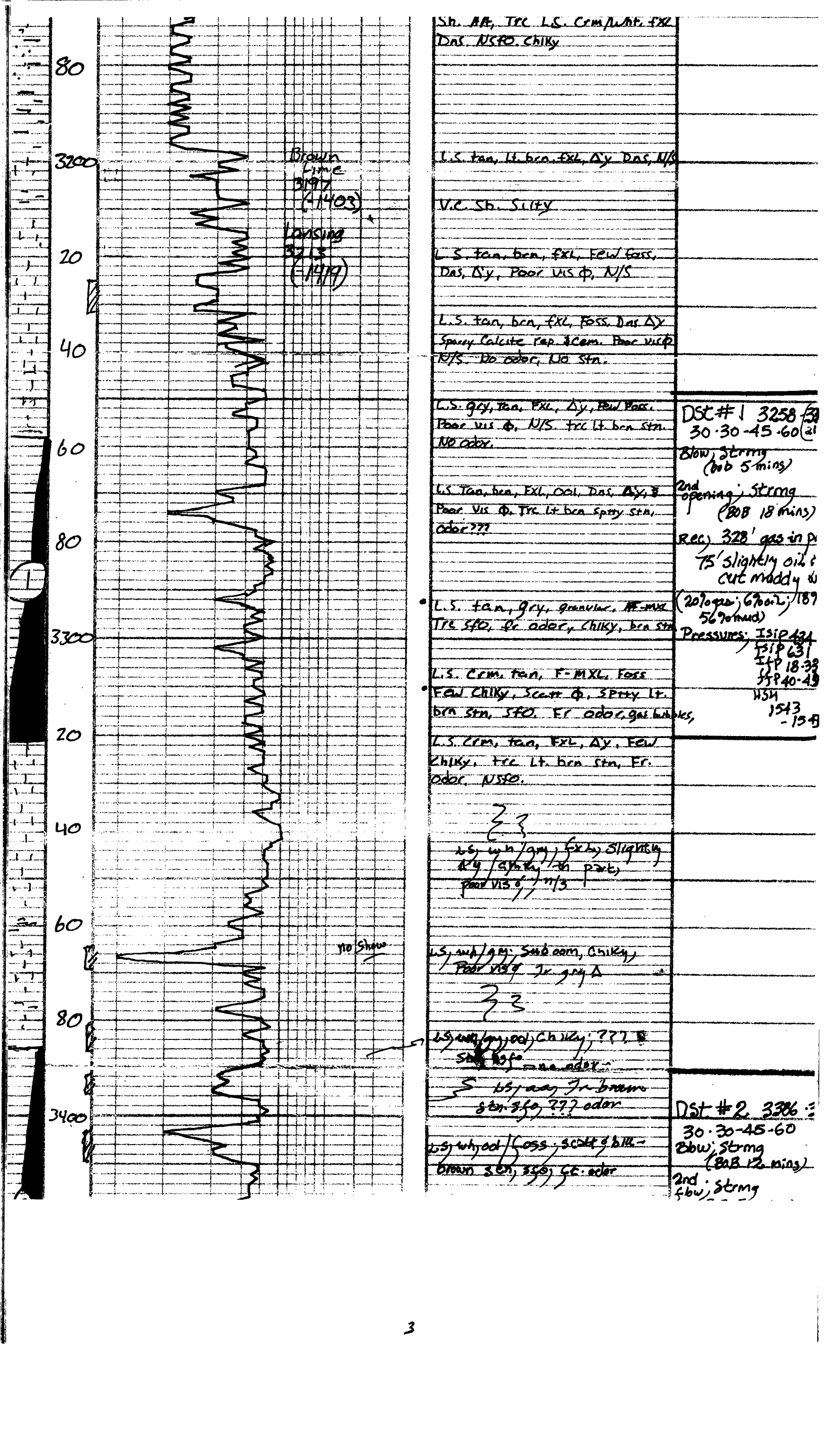
L.S. - tan, gry, Fxl, Few fass, Chky
No show free oil, trc. Lt brn str
No odor.

Sh. blk, Gry, greenish, Mar

Sh. aa, frc sand, f grain
Sub rounded, Pr-fc sorting, N/S

Sh. Gry, blk, Mar, greenish, frc
Sand aa.

KB 1794'



Sh. AF, Trc L.S. Crm/Wht. Fxl
Das. NSFO. Chiky

L.S. tan, lt. brn. fxl, Δy Das, N/S

V.C. Sh. Silty

L.S. tan, brn, fxl, Few foss,
Das, Δy, Poor vis φ, N/S

L.S. tan, brn, fxl, Foss, Das Δy
Sparry Calcite rap. Cem. Poor vis φ
N/S. No odor, No str.

L.S. Gry, Tan, Fxl, Δy, Few Foss.
Poor vis φ, N/S. Trc Lt. brn str.
No odor.

DST #1 3258 (30)
30-30-45-60 (21)

Blow string
(bob 5 mins)

L.S. Tan, brn, Fxl, Cal, Das, Δy, Poor
vis φ, Trc Lt. brn Sprry str,
odor???

2nd opening; string
(BOB 18 mins)

Rec. 328' gas in pl
75' slightly oil &
cut maddy w'

L.S. tan, Gry, granular, AF-mix
Trc sfo, fr odor, Chiky, brn str

(20% gas; 6% oil; 18%
56% mud)

Pressures: Isip 424

Isip 631

Isip 18-33

Isip 40-49

WSH
1543
- 1549

L.S. Crm. tan, F-MXL, Foss

Few Chiky, Scatt φ, Sprry Lt.
brn str, sfo. Fr odor, gas bubbles,

L.S. Crm, tan, Fxl, Δy, Few
Chiky, Trc Lt. brn str, Fr.
odor. NSFO.

33

L.S. wh/gry, fxl, slightly
ry / sfo, in part,
poor vis φ, n/s

no show

L.S. wh/gry, Sub com, Chiky,
Poor vis φ Jr. gry Δ

33

L.S. wh/gry, od, Chiky, ???,
sfo, no odor.

L.S. tan, Jr. brown
str. sfo, ??? odor.

DST #2 3386 (30)

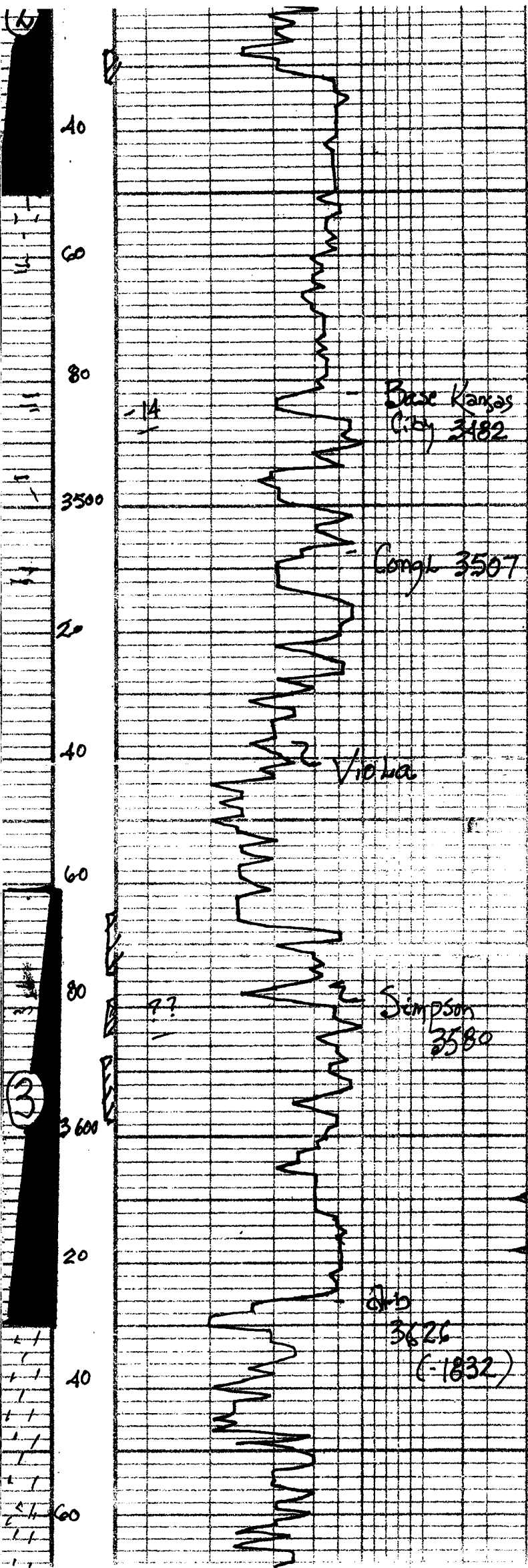
30-30-45-60
Blow string
(BOB 12 mins)

2nd blow; string

L.S. wh, od, Foss, scatt φ blk -
brown sen, sfo, fr. odor

(1)

(3)



us, gm; fozz; chiky in part
 gas/for sh, 1% fo,
 2% odor

us, wh/gm, chiky, poorly
 dev; in poor sh, nsfo
 no odor

Y.E. Sh.

us, wh/gm, chiky, in
 brown sh, nsfo, no odor

grey/mud, green sh

3 2
 aka

amber/gm - yellow/green
 opaque &
 1% blk/gm sh
 no odor

3 2

slug amber/gm - tan
 opaque &

2 2

grey in sh, wh/gm, fxb
 chiky, in brown sh.

3 2

gm/green sh.

2 3

cal, y, red, sand, per
 1% sh, 1% sh

2 2

ditto

Pol wh/gm, fmed (homb) in, fmed
 scattered green blue sh, broken
 open, 1% fo, no odor.

Pol grey/wh, fmed brown in,
 porous in, salt sh, nsfo
 no odor - B-wh

7 2

▲ lower wh/crw

REC; 185 Gas in y
 5' # oils Gas cu
 mud
 (4% gas; 16% oil;
 80% mud)

63' Heavily oil & c
 cut watery m
 (26% gas, 64% oil,
 4% water, 10% m)

60' Heavily oil &
 cut muddy w
 (16% gas) 59% oi.
 15% water, 10% m

60' oil; Gas cut
 watery mud
 (41% gas) 33% o.
 14% water, 12% m

pressures:
 Isip 1080
 Ss: p 1092
 IEP 23-57
 SSP 57-74
 HSH 1632-163

DST# 3 3561-36
 45-30-60-60
 Blow; strong

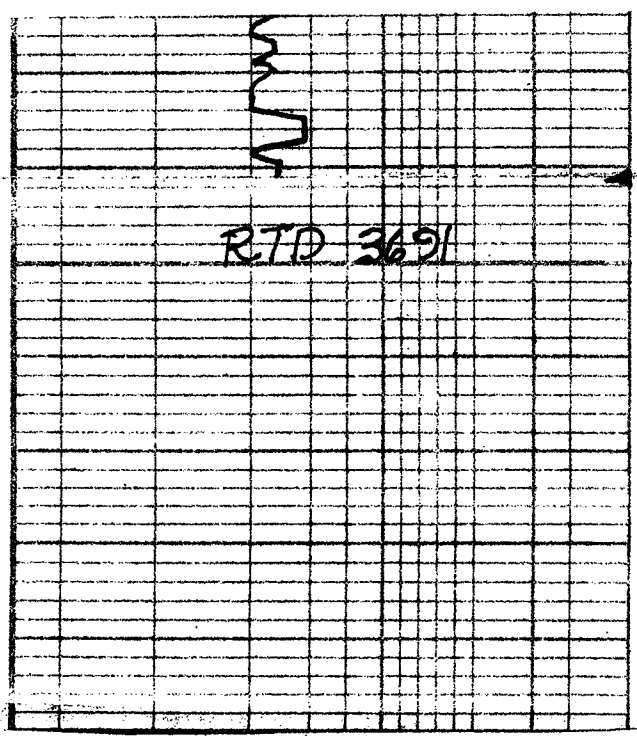
REC; 73' slightly oi
 cut mud
 (1% oil), 99% m
 309' muddy w
 sum of oil

pressures: Isip 126
 Ss: p 1233
 IEP 10-111
 SSP 112-16
 HSH 1758-17

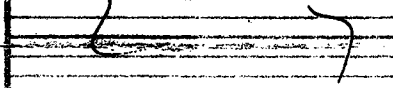
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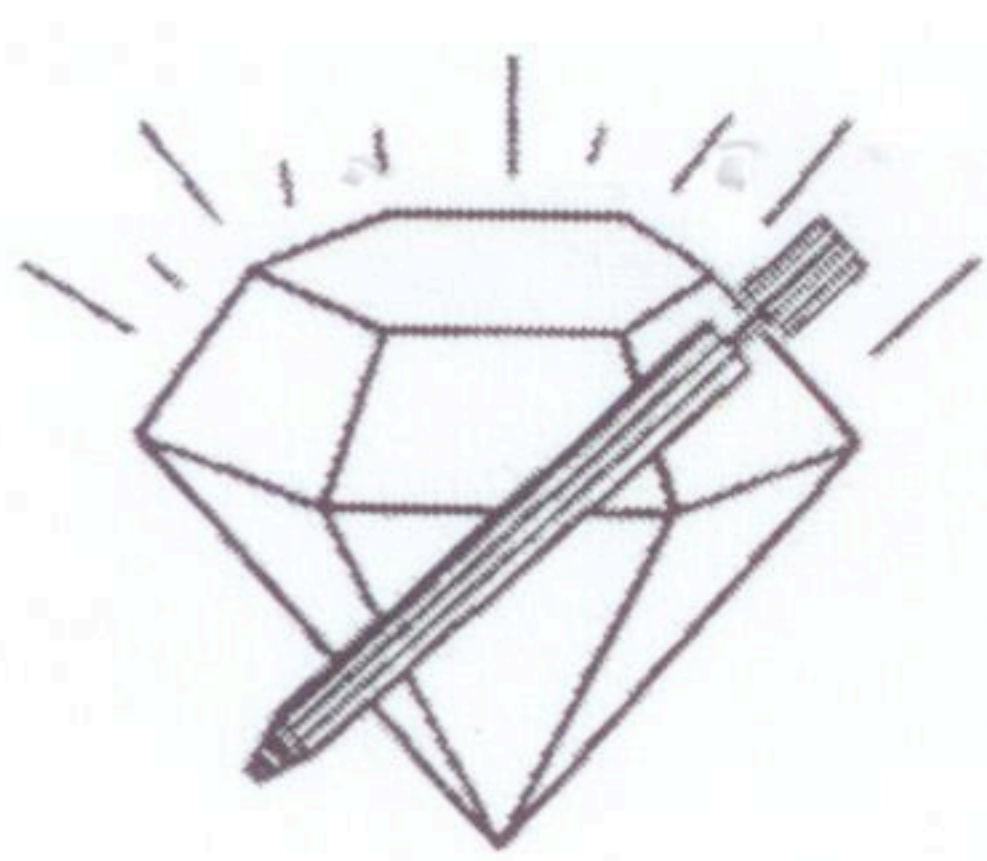
80

300



Por cem/ton, fixa, classe,
por vis, D- bonyun





DIAMOND TESTING, LLC
 P.O. Box 157
HOISINGTON, KANSAS 67544
 (620) 653-7550 • (800) 542-7313
 HEYEN2-27DST1

Company Grady Bolding Corporation Lease & Well No. Heyen No. 2-27
 Elevation 1794 KB Formation Lansing/Kansas City Effective Pay Ft. Ticket No. B009
 Date 5-31-13 Sec. 27 Twp. 22S Range 11W County Stafford State Kansas
 Test Approved By James C. Musgrove Diamond Representative Bob Hamel

Formation Test No. 1 Interval Tested from 3,258 ft. to 3,321 ft. Total Depth 3,321 ft.
 Packer Depth 3,253 ft. Size 6 3/4 in. Packer Depth ft. Size in.
 Packer Depth 3,258 ft. Size 6 3/4 in. Packer Depth ft. Size in.
 Depth of Selective Zone Set ft.

Top Recorder Depth (Inside) 3,246 ft. Recorder Number 5513 Cap. 5,000 psi.
 Bottom Recorder Depth (Outside) 3,318 ft. Recorder Number 13386 Cap. 4,950 psi.
 Below Straddle Recorder Depth ft. Recorder Number Cap. psi.

Drilling Contractor Petromark Drilling, LLC - Rig 2 Drill Collar Length 120 ft I.D. 2 1/4 in.
 Mud Type Chemical Viscosity 54 Weight Pipe Length ft I.D. in.
 Weight 9.1 Water Loss 8.0 cc. Drill Pipe Length 3,112 ft I.D. 3 1/2 in.
 Chlorides 4,200 P.P.M. Test Tool Length 26 ft Tool Size 3 1/2-IF in.
 Jars: Make Sterling Serial Number Not Run Anchor Length 32' perf. w/31' drill pipe Size 4 1/2-FH in.
 Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2-XH in.

Blow: 1st Open: Weak, 1/4 in. blow increasing. Off bottom of bucket in 5 mins. No blow back during shut-in.

2nd Open: Weak, surface blow increasing. Off bottom of bucket in 18 mins. No blow back during shut-in.

Recovered 328 ft. of gas in pipe
 Recovered 75 ft. of oil & water cut gassy mud = .369000 bbls. (Grind out: 20%-gas; 6%-oil; 18%-water; 56%-mud) Chlorides: 31,000 Ppm PH: 7.0 RW: .16 @ 92°
 Recovered 75 ft. of TOTAL FLUID = .369000 bbls.
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks Tool Sample Grind Out: 12%-gas; 2%-oil; 52%-water; 34%-mud

Time Set Packer(s) 12:14 P.M. Time Started off Bottom 2:59 P.M. Maximum Temperature 101°
 Initial Hydrostatic Pressure.....(A) 1543 P.S.I.
 Initial Flow Period.....Minutes 30 (B) 18 P.S.I. to (C) 33 P.S.I.
 Initial Closed In Period.....Minutes 30 (D) 434 P.S.I.
 Final Flow Period.....Minutes 45 (E) 40 P.S.I. to (F) 49 P.S.I.
 Final Closed In Period.....Minutes 60 (G) 631 P.S.I.
 Final Hydrostatic Pressure.....(H) 1543 P.S.I.

DIAMOND TESTING

ROGER D. FRIEDLY

CELL # 620-793-2043

General Information

Company Name	GRADY BOLDING CORP	LYLE GUNN	Job Number	B009
Contact		HEYEN #2-27	Representative	BOB HAMEL
Well Name		DST #1 LKC 3,258' - 3,321'	Well Operator	GRADY BOLDING CORP
Unique Well ID		SEC 27-22S-11W STAFFORD, CO., KS	Prepared By	ROGER D. FRIEDLY
Surface Location		SLEEPER SOUTH	Qualified By	JAMES MUSGROVE
Field		Vertical	Test Unit	NO. 6
Well Type				

Test Information

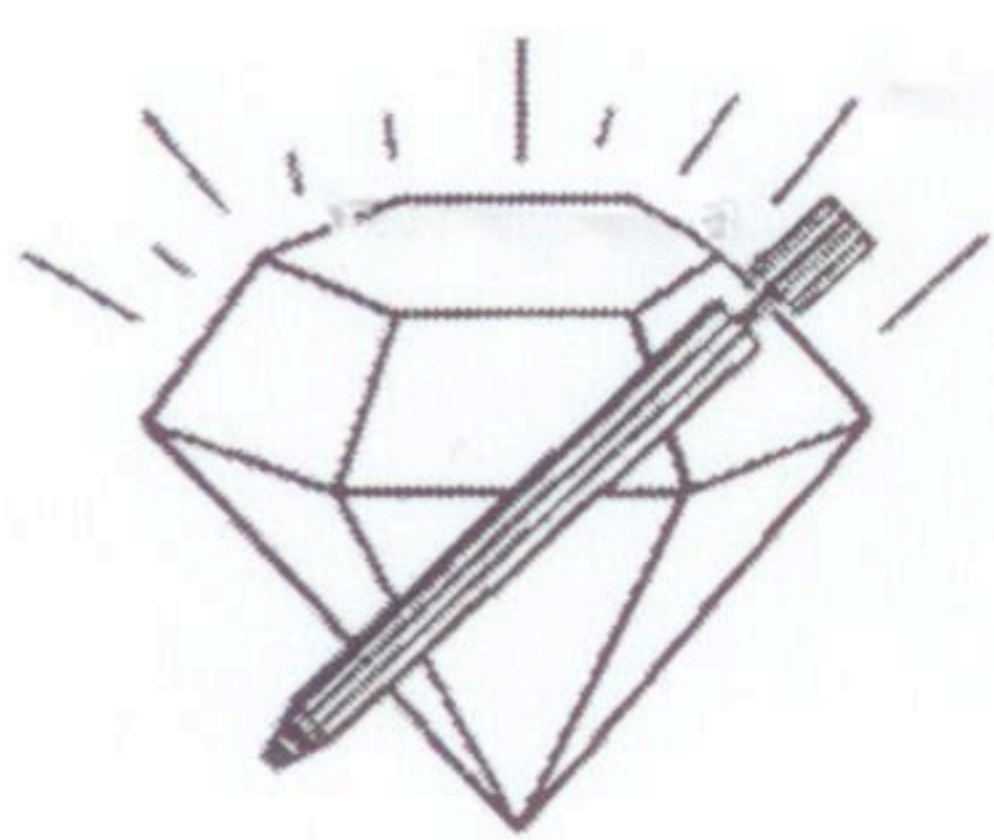
Test Type	CONVENTIONAL	Representative	BOB HAMEL
Formation	DST #1 LKC 3,258' - 3,321'	Well Operator	GRADY BOLDING CORP
Well Fluid Type	06 Water	Report Date	2013/05/31
Test Purpose (AEUB)	Initial Test	Prepared By	ROGER D. FRIEDLY
Start Test Date	2013/05/31	Start Test Time	10:20:00
Final Test Date	2013/05/31	Final Test Time	16:23:00

Test Results

RECOVERED: 328' GAS IN PIPE
75' O&WCGM 20% GAS, 6% OIL, 18% WTR, 56% MUD
75' TOTAL FLUID

TOOL SAMPLE: 12% GAS, 2% OIL, 52% WTR, 34% MUD

CHLORIDES: 31,000 Ppm
PH: 7.0
RW: .16 @ 92 deg.



DIAMOND TESTING, LLC
P.O. Box 157
HOISINGTON, KANSAS 67544
(620) 653-7550 • (800) 542-7313
HEYEN2-27DST2

Company Grady Bolding Corporation Lease & Well No. Heyen No. 2-27
Elevation 1794 KB Formation Lansing/Kansas City Effective Pay Ft. Ticket No. B010
Date 6-1-13 Sec. 27 Twp. 22S Range 11W County Stafford State Kansas
Test Approved By James C. Musgrove Diamond Representative Bob Hamel

Formation Test No. 2 Interval Tested from 3,386 ft. to 3,450 ft. Total Depth 3,450 ft.
Packer Depth 3,381 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Packer Depth 3,386 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Depth of Selective Zone Set ft.

Top Recorder Depth (Inside) 3,374 ft. Recorder Number 5513 Cap. 5,000 psi.
Bottom Recorder Depth (Outside) 3,447 ft. Recorder Number 13386 Cap. 4,950 psi.
Below Straddle Recorder Depth ft. Recorder Number Cap. psi.

Drilling Contractor Petromark Drilling, LLC - Rig 2 Drill Collar Length 120 ft I.D. 2 1/4 in.
Mud Type Chemical Viscosity 54 Weight Pipe Length ft I.D. in.
Weight 9.1 Water Loss 8.0 cc. Drill Pipe Length 3,240 ft I.D. 3 1/2 in.
Chlorides 4,200 P.P.M. Test Tool Length 26 ft Tool Size 3 1/2-IF in.
Jars: Make Sterling Serial Number Not Run Anchor Length 33' perf. w/31' drill pipe Size 4 1/2-FH in.
Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2-XH in.

Blow: 1st Open: Weak, 1/4 in. blow increasing. Off bottom of bucket in 12 1/2 mins. Weak, surface blow back died.

2nd Open: Good, 4 in. blow increasing. Off bottom of bucket in 5 mins. Weak, surface blow back died.

Recovered 185 ft. of gas in pipe
Recovered 5 ft. of gas cut oily mud = .071150 bbls. (Grind out: 4%-gas; 16%-oil; 80%-mud)
Recovered 63 ft. of slightly water & mud cut gassy oil = .896490 bbls. (Grind out: 26%-gas; 60%-oil; 4%-water; 10%-mud)
Recovered 60 ft. of mud & water cut gassy oil = .295200 bbls. (Grind out: 16%-gas; 59%-oil; 15%-water; 10%-mud) Chlorides: 12,000 Ppm PH: 6.5 RW: .42 @ 72°
Recovered 60 ft. of mud & water cut oily gas = .295200 bbls. (Grind out: 41%-gas; 33%-oil; 14%-water; 12%-mud)
Recovered 188 ft. of TOTAL FLUID = 1.558040 bbls.
Remarks Tool Sample Grind Out: 10%-gas; 55%-oil; 17%-water; 18%-mud

Time Set Packer(s) 7:16 A.M. Time Started off Bottom 10:01 A.M. Maximum Temperature 104°
Initial Hydrostatic Pressure.....(A) 1632 P.S.I.
Initial Flow Period.....Minutes 30 (B) 23 P.S.I. to (C) 57 P.S.I.
Initial Closed In Period.....Minutes 30 (D) 1081 P.S.I.
Final Flow Period.....Minutes 45 (E) 57 P.S.I. to (F) 74 P.S.I.
Final Closed In Period.....Minutes 60 (G) 1092 P.S.I.
Final Hydrostatic Pressure.....(H) 1635 P.S.I.

DIAMOND TESTING

ROGER D. FRIEDLY

CELL # 620-793-2043

General Information

Company Name	GRADY BOLDING CORP	LYLE GUNN	Job Number	B010
Contact		HEYEN #2-27	Representative	BOB HAMEL
Well Name		DST #2 LKC 3,386' - 3,450'	Well Operator	GRADY BOLDING CORP
Unique Well ID		SEC 27-22S-11W STAFFORD CO., KS	Prepared By	ROGER D. FRIEDLY
Surface Location		SLEEPER SOUTH	Qualified By	JAMES MUSGROVE
Field		Vertical	Test Unit	NO. 6
Well Type				

Test Information

Test Type	CONVENTIONAL	Representative	BOB HAMEL
Formation	DST #2 LKC 3,386' - 3,450'	Well Operator	GRADY BOLDING CORP
Well Fluid Type	01 Oil	Report Date	2013/06/01
Test Purpose (AEUB)	Initial Test	Prepared By	ROGER D. FRIEDLY

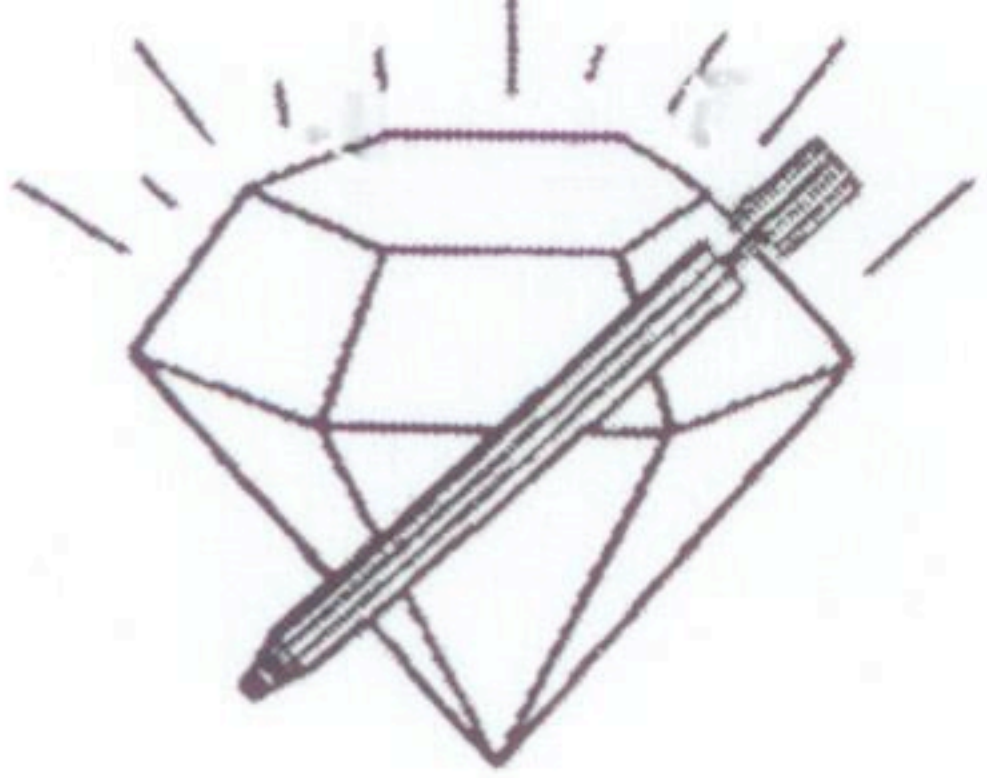
Start Test Date	2013/06/01	Start Test Time	05:18:00
Final Test Date	2013/06/01	Final Test Time	11:37:00

Test Results

RECOVERED:	185'	GAS IN PIPE	
	5'	GCOM	4% GAS, 16% OIL, 80% MUD
	63'	SLTW&MCGO	26% GAS, 60% OIL, 4% WTR, 10% MUD
	60'	M&WCGO	16% GAS, 59% OIL, 15% WTR, 10% MUD
	60'	M&WCOG	41% GAS, 33% OIL, 14% WTR, 12% MUD
	188'	TOTAL FLUID	

TOOL SAMPLE: 10% GAS, 55% OIL, 17% WTR, 18% MUD

CHLORIDES: 12,000 Ppm
 PH 6.5
 RW: .42 @ 72 deg



DIAMOND TESTING, LLC
P.O. Box 157
HOISINGTON, KANSAS 67544
(620) 653-7550 • (800) 542-7313
HEYEN2-27DST3

Company Grady Bolding Corporation Lease & Well No. Heyen No. 2-27
Elevation 1794 KB Formation Arbuckle Effective Pay Ft. Ticket No. B011
Date 6-2-13 Sec. 27 Twp. 22S Range 11W County Stafford State Kansas
Test Approved By James C. Musgrove Diamond Representative Bob Hamel

Formation Test No. 3 Interval Tested from 3,562 ft. to 3,631 ft. Total Depth 3,631 ft.
Packer Depth 3,557 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Packer Depth 3,562 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Depth of Selective Zone Set ft.

Top Recorder Depth (Inside) 3,550 ft. Recorder Number 5513 Cap. 5,000 psi.
Bottom Recorder Depth (Outside) 3,628 ft. Recorder Number 13386 Cap. 4,950 psi.
Below Straddle Recorder Depth ft. Recorder Number Cap. psi.

Drilling Contractor Petromark Drilling, LLC - Rig 2 Drill Collar Length 120 ft I.D. 2 1/4 in.
Mud Type Chemical Viscosity 37 Weight Pipe Length ft I.D. in.
Weight 9.6 Water Loss 10.0 cc. Drill Pipe Length 3,416 ft I.D. 3 1/2 in.
Chlorides 5,900 P.P.M. Test Tool Length 26 ft Tool Size 3 1/2-IF in.
Jars: Make Sterling Serial Number Not Run Anchor Length 38' perf. w/31' drill pipe Size 4 1/2-FH in.
Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2-XH in.

Blow: 1st Open: Weak, 1/4 in. blow increasing. Off bottom of bucket in 35 mins. No blow back during shut-in.
2nd Open: Weak, 1/4 in. blow increasing. Off bottom of bucket in 43 mins. No blow back during shut-in.

Recovered 73 ft. of slightly oil cut mud = 1.038790 bbls. (Grind out: 1%-oil; 99%-mud)
Recovered 189 ft. of muddy water w/a scum of oil = 2.689470 bbls. (Grind out: 54%-water; 46%-mud)
Recovered 120 ft. of muddy water w/a scum of oil = .590400 bbls. (Grind out: 67%-water; 33%-mud) Chlorides: 10,000 Ppm PH: 7.0 RW: .55 @ 72°
Recovered 382 ft. of TOTAL FLUID = 4.318660 bbls.
Recovered ft. of
Recovered ft. of
Remarks Tool Sample Grind Out: 3%-oil; 43%-water; 54%-mud

Time Set Packer(s) 8:28 A.M. Time Started off Bottom 11:43 A.M. Maximum Temperature 107°
Initial Hydrostatic Pressure.....(A) 1758 P.S.I.
Initial Flow Period.....Minutes 45 (B) 10 P.S.I. to (C) 111 P.S.I.
Initial Closed In Period.....Minutes 30 (D) 1216 P.S.I.
Final Flow Period.....Minutes 60 (E) 112 P.S.I. to (F) 188 P.S.I.
Final Closed In Period.....Minutes 60 (G) 1233 P.S.I.
Final Hydrostatic Pressure.....(H) 1740 P.S.I.

DIAMOND TESTING

ROGER D. FRIEDLY

CELL # 620-793-2043

General Information

Company Name	GRADY BOLDING CORP	LYLE GUNN Job Number	B011
Contact		HEYEN #2-27 Representative	BOB HAMEL
Well Name		DST #3 ARBUCKLE 3,562' - 3,631' Well Operator	GRADY BOLDING CORP
Unique Well ID		SEC 27-22S-11W STAFFORD CO., KS Prepared By	ROGER D. FRIEDLY
Surface Location		Vertical Test Unit	JAMES MUSGROVE
Field			NO. 6
Well Type			

Test Information

Test Type		Representative	BOB HAMEL
Formation	DST #3 ARBUCKLE 3,562' - 3,631'	Well Operator	GRADY BOLDING CORP
Well Fluid Type	01 Oil	Report Date	2013/06/02
Test Purpose (AEUB)	Initial Test	Prepared By	ROGER D. FRIEDLY
Start Test Date	2013/06/02	Start Test Time	07:00:00
Final Test Date	2013/06/02	Final Test Time	13:27:00

Test Results

RECOVERED: 73' SLTOCM1% OIL, 99% MUD
189' MW 54% WTR, 46% MUD - SCUM OF OIL
120' MW 67% WTR, 33% MUD - SCUM OF OIL
382' TOTAL FLUID

TOOL SAMPLE: 3% OIL, 43% WTR, 54% MUD

CHLORIDES: 10,000 Ppm
PH: 7.0
RW: .55 @ 72 deg