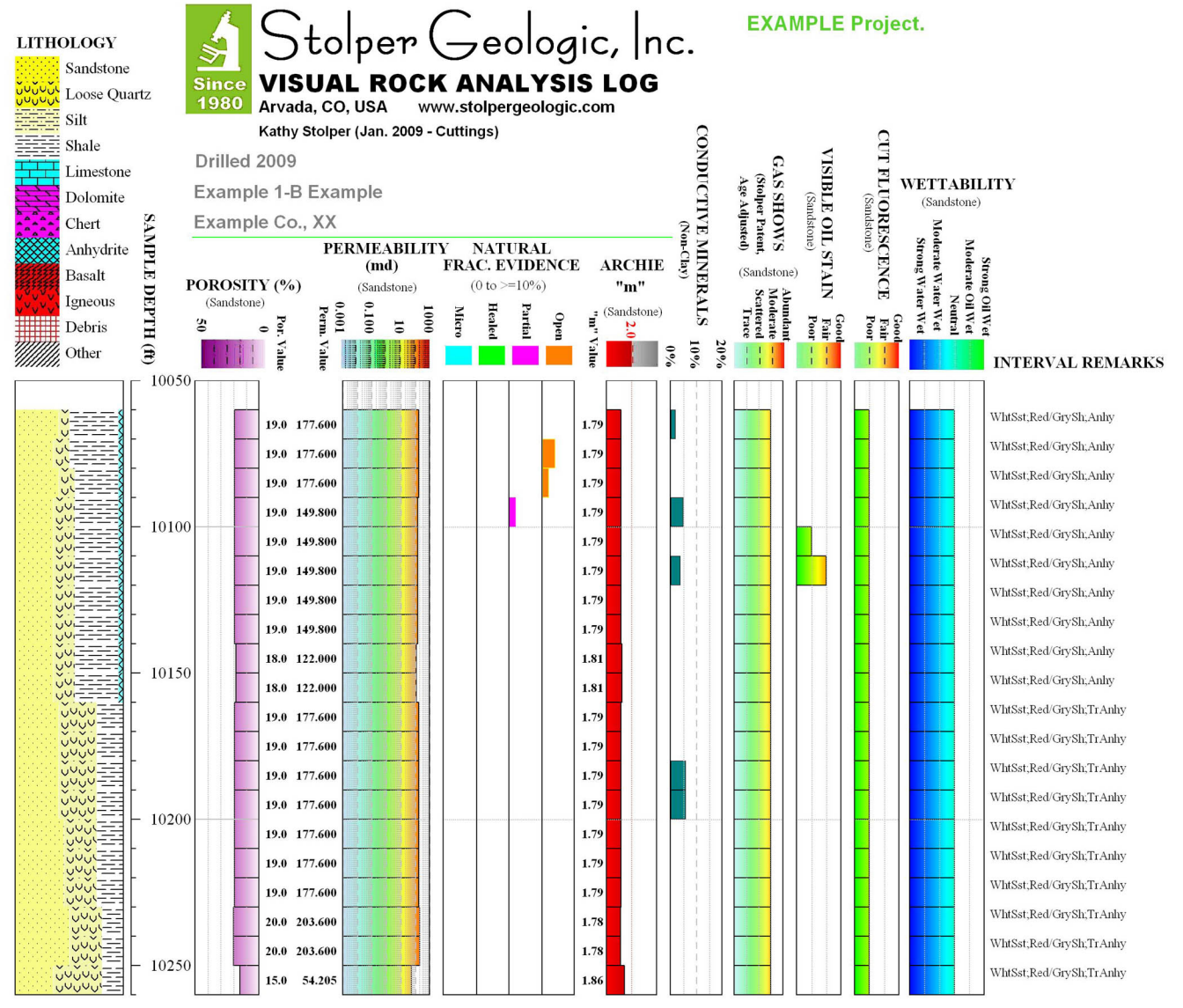

LITHOLOGY
Sandstone
Loose Quartz
Silt
Shale
Limestone
Dolomite
Chert
Anhydrite
Basalt
Igneous
Debris
Other
Since 1980
Stolper Geologic, Inc.
VISUAL ROCK ANALYSIS LOG
Arvada, CO, USA www.stolpergeologic.com
Kathy Stolper (Jan. 2009 - Cuttings)
EXAMPLE Project.
Drilled 2009
Example 1-B Example
Example Co., XX
SAMPLE DEPTH (ft)
POROSITY (%)
(Sandstone)
50
0
Por. Value
PERMEABILITY
(md)
(Sandstone)
0.001
0.100
10
1000
Perm. Value
NATURAL
FRAC. EVIDENCE
(0 to >=10%)
Micro
Healed
Partial
Open
ARCHIE
"m"
(Sandstone)
2.0
"m" Value
CONDUCTIVE MINERALS
(Non-Clay)
0%
10%
20%
GAS SHOWS
(Stolper Patent, Age Adjusted)
(Sandstone)
Abundant
Moderate
Scattered
Trace
VISIBLE OIL STAIN
(Sandstone)
Good
Fair
Poor
CUT FLUORESCENCE
(Sandstone)
Good
Fair
Poor
WETTABILITY
(Sandstone)
Strong Oil Wet
Moderate Oil Wet
Neutral
Moderate Water Wet
Strong Water Wet
INTERVAL REMARKS
10050
10100
10150
10200
10250
19.0 177.600
19.0 177.600
19.0 177.600
19.0 149.800
19.0 149.800
19.0 149.800
19.0 149.800
19.0 149.800
18.0 122.000
18.0 122.000
19.0 177.600
19.0 177.600
19.0 177.600
19.0 177.600
19.0 177.600
19.0 177.600
19.0 177.600
19.0 177.600
20.0 203.600
20.0 203.600
15.0 54.205
1.79
1.79
1.79
1.79
1.79
1.79
1.79
1.79
1.81
1.81
1.79
1.79
1.79
1.79
1.79
1.79
1.79
1.79
1.78
1.78
1.86
WhtSst;Red/GrySh;Anhy
WhtSst;Red/GrySh;Anhy
WhtSst;Red/GrySh;Anhy
WhtSst;Red/GrySh;Anhy
WhtSst;Red/GrySh;Anhy
WhtSst;Red/GrySh;Anhy
WhtSst;Red/GrySh;Anhy
WhtSst;Red/GrySh;Anhy
WhtSst;Red/GrySh;Anhy
WhtSst;Red/GrySh;Anhy
WhtSst;Red/GrySh;TrAnhy
WhtSst;Red/GrySh;TrAnhy
WhtSst;Red/GrySh;TrAnhy
WhtSst;Red/GrySh;TrAnhy
WhtSst;Red/GrySh;TrAnhy
WhtSst;Red/GrySh;TrAnhy
WhtSst;Red/GrySh;TrAnhy
WhtSst;Red/GrySh;TrAnhy
WhtSst;Red/GrySh;TrAnhy
WhtSst;Red/GrySh;TrAnhy
WhtSst;Red/GrySh;TrAnhy

Stolper Geologic, Inc.: Panel 1 of 3

ROCK ANALYSIS by STOLPER GEOLOGIC, INC. - Arvada, CO, USA

Project: EXAMPLE

Petrologist: Kathy Stolper **Date of Work:** Jan. 2009

Cuttings: X SW Core: Whole Core: Core Chips:

Well Information

Operator: EXAMPLE
Well Name-Number: 1-EXAMPLE
Location (T-R-S):
County, State: Example Co., XX
API#:
Date Drilled: 2009 PC Filename: stolper_spreadsheet.xls

General Remarks: Cuttings too small to test wettability.

Panel 1 | Panel 2 | Panel 3
Panel 4 | Panel 5 | Panel 6

(35 API)
A > 300 m (>1000 ft)
B>=150 m but <300 m (>=500 ft but<1000 ft)
C>=30 m but <150 m (>=100 ft but <500 ft)
D>=15 m but <30 m (>=50 ft but <100 ft)
E<15 m (<50 ft)
F = waste zone rocks

1=Very Well
2=Well
3=Moderate
4=Poor
5=Very Poor
6=Bimodal

SORTING

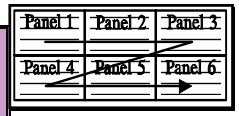
IA=>100 md
IB=10-100 md
IC=1-10 md
ID=0.5-1 md
II=0.07-0.5 md

Ver. 2

DEPTH INTERVAL (Feet)		% FRACTURES			% LITHOLOGY								% SEAL TYPE						% GRAIN SIZE (Sst)								% RMS ROCK TYPE (Sst)						MODIFIED ARCHIE CLASSIFICATION (Carb)										
		Healed		Partial																													% TYPE I					% II	% TYPE III				
		Micro		Open																																							
Begin	End	Sst	LQ	Sh	LS	Dolo	Cht	Anhy	Deb	Oth			A	B	C	D	E	F	Slt	LVF	UVF	LF	UF	LM	UM	LC	UC	VC		IA	IB	IC	ID	II	III	MX	VF	F	Med	Crs	VF	XF	VF	F	M	Crs
10,060.0	10,070.0	40	10	45				5														15	55	25	5				3	55	30	15														
10,070.0	10,080.0	35	15	45				5														15	55	25	5				3	55	30	15														
10,080.0	10,090.0	40	15	40				5														15	55	25	5				3	55	30	15														
10,090.0	10,100.0	35	20	40				5														15	55	25	5				3	45	35	20														
10,100.0	10,110.0	35	20	40				5														15	45	35	5				3	45	35	20														
10,110.0	10,120.0	35	20	40				5														15	45	35	5				3	45	35	20														
10,120.0	10,130.0	35	20	40				5														15	45	35	5				3	45	35	20														
10,130.0	10,140.0	35	20	40				5														15	40	40	5				3	45	35	20														
10,140.0	10,150.0	35	20	40				5														15	40	40	5				3	35	40	25														
10,150.0	10,160.0	35	20	40				5														15	40	40	5				3	35	40	25														
10,160.0	10,170.0	40	35	25																		15	40	40	5				3	55	30	15														
10,170.0	10,180.0	40	35	25																		15	40	40	5				3	55	30	15														
10,180.0	10,190.0	40	35	25																		15	40	40	5				3	55	30	15														
10,190.0	10,200.0	40	35	25																		15	40	40	5				3	55	30	15														
10,200.0	10,210.0	45	30	25																		15	40	40	5				3	55	30	15														
10,210.0	10,220.0	45	30	25																		15	40	40	5				3	55	30	15														
10,220.0	10,230.0	45	30	25																		15	40	40	5				3	55	30	15														
10,230.0	10,240.0	50	30	20																		15	40	40	5				3	65	20	15														
10,240.0	10,250.0	50	30	20																		15	40	40	5				3	65	20	15														
10,250.0	10,260.0	35	45	20																		30	40	30					3	15	20	25	25	15													

Stolper Geologic, Inc.: Panel 2 of 3

Op: EXAMPLE
Well: 1-EXAMPLE



B < 0.125mm
C = 0.125-2.0mm
D > 2.0mm

IEP = Interparticle
IAP = Intraparticle
IEXL = Intercrystal
IAXL = Intracrystal
M = Moldic
Fen = Fenestral
Frac = Fracture
Vug = Vuggy
S=Separate
T=Touching
Oth = Other

MDST = Mudstone
WKST = Wackstone
PKST = Packstone
GRST = Grainstone
BDST = Boundstone
XLN = Crystalline
SUC = Sucrosic

Micro = Micro Crystalline
XF = Extremely Fine
VF = Very Fine
F = Fine
Med = Medium
Crs = Coarse
VCRS = Very Coarse
XCRS = Extremely Coarse

DEPTH INTERVAL (Feet)		% VISIBLE PORES (Carb)			% POROSITY						% CHOQUETTE-PRAY POROSITY TYPES (Carb)										% DUNHAM CLASSIFICATION (Carb)							% PARTICLE/CRYSTAL SIZE (Carb)								AMBIENT PERMEABILITY (md)	
					EFFECTIVE		HIDDEN		TOTAL																											
																			Vug																	
Begin	End	B	C	D	Sst	Carb	Sst	Carb	Sst	Carb	IEP	IAP	IE-XL	IA-XL	M	Fen	Frac	S	T	Oth	MDST	WKST	PKST	GRST	BDST	XLN	SUC	Micro	XF	VF	F	Med	Crs	VCRS	XCRS	Sst	Carb
10,060.0	10,070.0				19.0				19.0																									177.600	
10,070.0	10,080.0				19.0				19.0																									177.600	
10,080.0	10,090.0				19.0				19.0																									177.600	
10,090.0	10,100.0				19.0				19.0																									149.800	
10,100.0	10,110.0				19.0				19.0																									149.800	
10,110.0	10,120.0				19.0				19.0																									149.800	
10,120.0	10,130.0				19.0				19.0																									149.800	
10,130.0	10,140.0				19.0				19.0																									149.800	
10,140.0	10,150.0				18.0				18.0																									122.000	
10,150.0	10,160.0				18.0				18.0																									122.000	
10,160.0	10,170.0				19.0				19.0																									177.600	
10,170.0	10,180.0				19.0				19.0																									177.600	
10,180.0	10,190.0				19.0				19.0																									177.600	
10,190.0	10,200.0				19.0				19.0																									177.600	
10,200.0	10,210.0				19.0				19.0																									177.600	
10,210.0	10,220.0				19.0				19.0																									177.600	
10,220.0	10,230.0				19.0				19.0																									177.600	
10,230.0	10,240.0				20.0				20.0																									203.600	
10,240.0	10,250.0				20.0				20.0																									203.600	
10,250.0	10,260.0				15.0				15.0																									54.205	

Stolper Geologic, Inc.: Panel 3 of 3

Op: EXAMPLE
Well: 1-EXAMPLE

1=Unconsolidated
2=Slightly
3=Moderate
4=Moderately Well
5=Well
6=Very Well
CONSOLIDATION

% ADDITIONAL CUMULATIVE CONDUCTIVE MINERALS

CEMENTATION EXPONENT

MINERALOGY
1=Present

A=Abundant
B=Moderate
C=Scattered
D=Trace
GAS SHOWS
(Stolper Patent)

Visible Oil Stain
Dead Oil Stain
Gas
Lignite
Natural Fluorescence
Cut Fluorescence
Residual Cut Fluores
1=Poor (1-40%)
2=Fair (41-85%)
3=Good (86-100%)

5=Strong Oil Wet
4=Moderate Oil Wet
3=Neutral
2=Moderate Water Wet
1=Strong Water Wet
WETTABILITY
(Druyff Scale)

Panel 1 | Panel 2 | Panel 3
Panel 4 | Panel 5 | Panel 6

1=Good
2=Fair
3=Poor
SAMPLE QUALITY

DEPTH INTERVAL (Feet)		% CLAY			% CEMENTS							MINERALOGY					CEMENTATION EXPONENT		Sandstone GAS SHOWS (Stolper Patent)		Carbonate GAS SHOWS (Stolper Patent)		SHOWS S=Sandstone C=Carbonate																			
		Non-Swelling	Swelling																					VOS		DOS		Lig		NF		CF		RCF							
Begin	End	Kao	Oth		Qtz	Cal	Dol	Pyr	Mic	Spr	Oth	Qtz	Fspr	%Arg	%Rk Frag	%Oth	Sst	Carb	Present	Age Adjusted	Present	Age Adjusted	S	C	S	C	S	C	S	C	S	C	S	C	S	C	Sst	Carb		REMARKS
10,060.0	10,070.0		6		4							3					1.79		B	B											1				1	1	WhtSst;Red/GrySh;Anhy
10,070.0	10,080.0		6		4							3					1.79		B	B											1				1	1	WhtSst;Red/GrySh;Anhy
10,080.0	10,090.0		6		4							3					1.79		B	B											1				1	1	WhtSst;Red/GrySh;Anhy
10,090.0	10,100.0		6		4							3					1.79		B	B											1				1	1	WhtSst;Red/GrySh;Anhy
10,100.0	10,110.0		6		4							3					1.79		B	B											1				1	1	WhtSst;Red/GrySh;Anhy
10,110.0	10,120.0		6		4							3					1.79		B	B											1				1	1	WhtSst;Red/GrySh;Anhy
10,120.0	10,130.0		6		4							3					1.79		B	B											1				1	1	WhtSst;Red/GrySh;Anhy
10,130.0	10,140.0		6		4							3					1.79		B	B											1				1	1	WhtSst;Red/GrySh;Anhy
10,140.0	10,150.0		7		4							3					1.81		B	B											1				1	1	WhtSst;Red/GrySh;Anhy
10,150.0	10,160.0		7		4							3					1.81		B	B											1				1	1	WhtSst;Red/GrySh;Anhy
10,160.0	10,170.0		6		4							3					1.79		B	B											1				1	1	WhtSst;Red/GrySh;TrAnhy
10,170.0	10,180.0		6		4							3					1.79		B	B											1				1	1	WhtSst;Red/GrySh;TrAnhy
10,180.0	10,190.0		6		4							3					1.79		B	B											1				1	1	WhtSst;Red/GrySh;TrAnhy
10,190.0	10,200.0		6		4							3					1.79		B	B											1				1	1	WhtSst;Red/GrySh;TrAnhy
10,200.0	10,210.0		6		4							3					1.79		B	B											1				1	1	WhtSst;Red/GrySh;TrAnhy
10,210.0	10,220.0		6		4							3					1.79		B	B											1				1	1	WhtSst;Red/GrySh;TrAnhy
10,220.0	10,230.0		6		4							3					1.79		B	B											1				1	1	WhtSst;Red/GrySh;TrAnhy
10,230.0	10,240.0		6		3							3					1.78		B	B											1				1	1	WhtSst;Red/GrySh;TrAnhy
10,240.0	10,250.0		6		3							3					1.78		B	B											1				1	1	WhtSst;Red/GrySh;TrAnhy
10,250.0	10,260.0		7		6							4					1.86		B	B											1				1	1	WhtSst;Red/GrySh;TrAnhy