

470'sample(sp)}LS: gy-tn-wh, dense & microXln w/ sm fnXtIs(dn-mx-fnX) poor(pr) Porosity(Poro) to No Visible Poro(NVP) No Show(NS).

500'sp} LS: As Above(AA) pred dn; sm Md-CrsX's- 2nd ReX; pred Vpr-NVP; NS
Rare(Rr) maroon(marn)-red, & green-gray(gn-gy) SH.

530'sp} LS: tn-wh, & gy, pred dn-mx-fnX; Vpr-NVP; NS;
SIners SH: AA: pred marn-rd.

566'sp} Abndt SH: gy-bk; & LS: dk-It-gy; abndt argil; sm fos-Pkst; Cherty; pr visbl Poro-NVP; NS.

ADMIRE 600' (+643)

600'sp} V.abndt SH: pred bk- sm carb, & dk-gy, sm It-gy & gn-gy.

630'sp} SH:AA; & SILTS: It-gy, micac; sm calc & Lmy; V.rare Sndy SILTS & Silty Sd Clust: gy, VfnGr'd, micac, well cmf'd w/ Vpr-pr visbl Poro; Slight Show Gas Bubbles(SISGB) No FLR(NF) No Cut(NC).

660'sp} sm SS-Sd Clusters: gy-wh, It-gn-gy, Vfn-fnGr'd, anglr-Rnd'd, pred well cmf'd, sm calc & Lmy, silty, micac; Rr friabl w/ pr Fr Poro w/ Slight to Fair Show Gas Bubbles(SI-Fr SGB) on break(brk); No FLR(NF) No Cut(NC).

690'sp} Pred SH: gy-bk, sm bk carb; sm SILTS: AA; sm argil LS & Lmy SH. V.rare(Vrr) Sd Clust:AA.

730'sp} SILTS: pred SILTS: It gy, gn-gy, sm micac, sm sndy; Rare Sd Clust: AA;

760'sp} SH: gy-bk; SILTS: gy, micac, sndy; & Silty SS: Sd Clust: It-dk-gy, Vfn-fnGr'd, anglr-Rnd'd; V.silty; well cmf'd- subfribl; sm calc; Vpr-Fr Poro; NS; NF; NC.

790'sp} Pred SH: gy, sm micac; Tro LS: argil dn.

820'sp} SH-SILTS: gy, sm calc & Lmy.

850'sp} SH-SILTS: dk-It-gy, sm calc & Lmy, sm micac, Rr Sndy.

880'sp} SH: gy-bk, sm pyrto, & bk carb; Rr LS: gy-bn, dn-mx, & argil; NVP; NS.

920'sp} Pred SH: bk-dk-gy; Rr Silty Sd Clust: gy, VfnGr'd, anglr-subRnd'd, well cmf'd, sm calc; Vpr-NVP; NS; NF; NC.

950'sp} Pred SH: gy-bk & gn-gy; sm LS: cm-gy-tn, dn-mx; Vpr-NVP; NS.

980'sp} SH: V.gated; gy, rd-marn, gn-gy; sm SILTS; Vrr LS: dn & argil

1010'sp} SH: gy-bk; Vrr LS: gy-bn, dn-mx-fnX; argil; NVP; NS.

1040'sp} Pred SH-SILTS: gy-bk, sm calc & Lmy; sm LS: md-dk-gy, gy-bn, argil, dn-mx-fnX; Vpr-NVP; NS.

1070'sp} Pred LS: cm-tn, gy-bn, mx-fnXln, w/ Rr Md-CrsX's; Vpr-NVP; NS.

1110'sp} Pred SH & SILTS: gy-bk, gn-gy, marn-rd; Rr SS-Sd Clust: Lt-md-gy, gn-gy, VfnGr'd, silty, well cmf'd-subfribl; Vpr-pr visbl Poro; NS;NF;NC.

1140'sp} LS: tn-cm, mx-fnXln, Rr prt MdXln, Rr ool & prt oomldo w/ Fr-Gd visbl Poro; NS; NC.

1170'sp} Pred SILTS: It-dk-gy, micac, Sndy; & Silty SS- Sd Clust gy, VfnGr'd, V.silty, well cmf'd to fribl; Vpr-pr visbl Poro; NS;NF;NC.

1200'sp} SH-SILTS: It-dk-gy, sm micac, Rr Sndy.

1240'sp} SH:dk-gy, sm bk carb; Vrr LS:tn-cm, gy-bn, dn-mx-CrsX; sm argil; Vpr-NVP; NS.

1260'sp} Abndt LS:cm-tn-gy, mx-fnX; sm pr pin point(pp) Poro w/ NS.

1290'sp} SH: dk-It-gy.

1330'sp} SH:AA & bk carb.

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1370'sp|| SH:AA; & marn-rd SH; &
~30% LS:gy-fn-cm; mx-fnX; pred dn w/
Vpr-NVP; NS.

1390'sp|| SH:gy-bk, sm calc & Lmy;
LS:gy, pred dn-mx, argil; Vpr-NVP; NS.

1420'sp|| Pred SH:gy-bk, sm calc &
Lmy; LS:gy, dn-mx; argil, sm sl fos;
Vpr-NVP; NS.

1450'sp|| Pred SH:gy-bk, sm calc &
Lmy; sm LS:gy-bk, dn-mx, argil; Vpr-
NVP; NS.

1490'sp|| Pred SH:gy-bk; Rare(Rr)
LS:tn-gy-bn; dn-mx & argil; Vpr-NVP;
NS.

1530'sp|| Pred SH:V.gated, gy-bk, gn-
gy, marn-rd; sm LS:lt-dk-gy, dn-mx-fnX;
sm argil; Vpr-NVP; NS.

1560'sp|| Pred SH:AA; & sm SS: Free
Sd Gr's:pred Vfn-fnGr'd, well Rnd'd-
anglr; & sm Sd Clust: Vfn-fnGr'd, well
Rnd'd to anglr; well cm'd to friblw/
pred pr-Fr visbl Poro; sm G-d aprnt
Poro; NS;NF;NC.

1590'sp|| SH:pred gy-bk, sm V.gated
AA; sm Sd Clust:lt-gy, VfnGr'd, silty; pr-
Fr Poro; NS; NF;NC.

1620'sp|| SH:pred bk subcarb-carb, dk-
gy, sm V.gated.

1690'sp|| SH:V.gated AA; SILTS: lt-gy,
calc; & LS:gy, dn & argil Mdst; Vpr-
NVP; NS.

1730'sp|| SH: V.gated; marn-rd & lt-gn-
gy.

1710'sp|| SILTS-SH:gy, calc & Lmy; &
LS:AA; NS.

1750'sp|| SH:AA

1770'sp|| SH-SILTS:gy-bf, sm calc &
Lmy; Vrr Sd Clust:bf-gy, VfnGr'd, silty;
Vpr-pr Poro; NS;NF;NC.

1790'sp|| SILTS:gy, calc, sm Sndy.

1810'sp|| SILTS & Silty Sd Clust:SS:lt-
gy-bf, Vfn-fnGr'd, pred well cm'd-sm
calc & Lmy; Vpr-NVP; NS; NF; NC.

1830'sp|| SILTS- Silty Sd Clust: gy-bf,
Vfn-fnGr'd, Rnd'd-s ubanglr; well cm'd,
Vpr-pr visbl Poro; NS;NF;NC.

1850'sp|| SILTS & Silty Sd Clust: AA;
sm calc & Lmy; Vpr-pr Poro;
NS;NF;NC.

1870'sp|| SH-SILTS:gy-bk, & lt-gy; sm
calc & Lmy.

1890'sp|| SH:gy-bk; SILTS:AA.

IATAN 1908 (-665)

1910'sp|| SH:dk-gy-bk.

STALNAKER 1945(-702)

1930'sp|| V.rare(Vrr) LS:gy, argil- dn;
(pred SH:AA).

1950'sp|| SH:AA; & SILTS:lt-dk-gy, sm
Sndy, micac.

1990'sp|| AA; incrs SILTS:AA.

2020'sp|| Pred SILTS:lt-gy, micac,
Sndy; & Silty SS: Sd Clust: lt-gy, Vfn-
fnGr'd, Rnd'd-anglr, well cm'd to friblw/
pr-Gd visbl Poro w/ NS;NF;NC.

2050'sp|| SS:Abndt Sd Clust:Pred
VfnGr'd, silty & well cm'd-s ubfribl,
micac, sm calc; pred pr visbl Poro; &
Sd Clust: gy-bf, Vfn-fnGr'd, w/ Vrr
MdGr's; Rnd'd-anglr, well cm'd-sm
calc, to friblw/ Fr-Gd I.G.r.Poro w/
NS;NF;NC.

2080'sp|| SS:Abndt Sd
Clust:AA;~50%Silty & micac & well
cm'd w/ pr visbl Poro; & Vfn-fnGr'd Sd
Clust:AA; Rr prt MdGr'd; well cm'd to
friblw/ pr-Gd Poro; NS;NF;NC.

2110'sp|| SS:pred Sd Clust:AA; incrs
silty VfnGr'd well cm'd, micac w/ pr
visbl Poro; NS;NF;NC.

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2140'sp] ~50% Sd Clust:AA; pred Vfn-fnGr'd w/ pr vis bl Poro; NS;NF;NC.

2140'spl.C ont'd] ~50% SH&SILTS: dk-lt-gy, sm Sndy, sm micac.

2170'sp] >95% SH:bk-dk-gy, sm bk carb.

2200'sp] Pred SH:AA

2200'spl.C ont'd] LS:gy-tn, dn-mx, sm Sndy, argil, sm shly; Vpr-NVP; NS.

2240'sp] Pred SH: bk-sm carb & dk-gy.

2140'spl.C ont'd] Vrr Sd Clust: SS:gy, Vfn-fnGr'd, Rnd'd-anglr, sm silty-shly, well cm'd-subfrbl w/ pr-Fr Poro w/ NS;NF;NC.

2270'sp] SH: bk & dk-gy.

2300'sp] SH: bk-sm carb, & dk-gy.

2340'sp] SH: bk & dk-gy; AA.

2370'sp] pred SH: gy-bk, sl pyrite; Tro Sndy SILTS & Silty Sd Clust; Vpr-pr Poro; NS;NF;NC.

2400'sp] Vrr LS:gy-tn, dn & argill, sm shly, sm silty; Vpr-NVP; NS.

2400'spl.C ont'd] SILTS:gy, micac, sm Sndy, sm calc & Lmy.

LAYTON 2390 (-1147)

2430'sp] SILTS:gy & gn-gy, sm micac, sm Sndy; & Silty SS: Sd Clust: lt-gy, silty, VfnGr'd, well cm'd, micac, pr vis bl Poro; NS;NF;NC.

2370'sp] Pred SILTS:lt-gy, sm micac, sm Sndy; & Silty SS: Sd Clust:AA; NS;NF;NC.

2500'sp] SS: Abndt Sd Clusters: gy-bf, pred Vfn-fnGr'd, Rnd'd-subanglr, sm Vfn-MdGr'd, mod-well sort'd, silty, micac, well cm'd to frbl w/ sm Fr-Gd Poro w/ NS;NF;NC.

2530'sp] SILTS:lt-dk-gy, micac; sm Sndy; (Vrr Sd Clust:AA).

KANSAS CITY 2540 (-1297)

2590'sp] LS:gy, gn-gy, argil, silty & shly; & SILTS:gy, sm calc, sm Sndy; sm SH:AA.

2590'spl.C ont'd] {KC} LS:gy-tn-wh, sm mot-Pkst, & mx-fnX; Vpr-NVP; NS.

2590'spl.C ont'd] SILTS:gy & gn-gy, Sndy, micac, sm calc; Vpr-NVP; NS;NF;NC.

2620'sp] SILTS:AA; sm calc; Tro dn LS.

2660'sp] Pred LS: cm-tn-gy-bn; dn-mx; sm argil-shly; Vpr-NVP; NS.

2660'spl.C ont'd] SH: dk-gy-bk, sm calc & Lmy, subcarb & bk carb.

CLEVELAND 2686 (-1443)

2690'sp] sm SH: (~30%) bk subcarb to carb, sm calc & Lmy;

& bk V. carb SH.

2690'spl.C ont'd] LS:cm-tn-gy-bn-bk, mot-sm-slfos- Pkst & mx-fnXln, prt argil & shly; Vrr MdX-VCrsX's- 2nd ReX; pred Vpr-pr vis bl Poro: pp, lGr, lXP; Tro Fr vis bl Poro:Vug; ~10% w/ sp'd to subs at sm-brt yel-wh FLR; & Sl-Fr Show Free Oil (SFO) & Gas Bubbles (GB) on break(brk). Sl-Fr milky Cut, Sl Petrol.Odor.

2720'sp] SH: gy-bk, sm carb; & SILTS: gn-gy, sm Sndy, sm calc. & sm LS: tn-gy-bn, dn-mx-fnX, pred Vpr-NVP w/ NS.

MARMATON 2747(-1504)

2810'sp] {MARMATON} Abndt LS: gy-tn-cm, gy-bn, pred dn-mx-fnX; sm argil; Vpr-NVP; NS.

2840'sp] LS: cm-tn-gy, dk-gy, pred dn-mx; sm argil; Vpr-NVP; NS; & SH:AA

CHEROKEE SH 2871(-1628)

2880'sp] SH:AA; incrs bk carb SH; LS: wh-gy & tn, sm chky, & mx-fnX, Tro pr lXP w/ FLR & D.STN & VSISFO & Cut; >99% Barren w/ pr-NVP.

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2910'sp|| SH: AA; bk subcarb- V.carb;
& LS: AA; pred dn- mx-fnX w/ Vpr-NVP
w/ NS.

2930'sp|| [CHEROKEE] Rr bk carb
SH:AA; Abndt SILTS: dk-lt gy.

2970'sp|| SILTS-SH:AA.

3000'sp|| SILTS:AA;

3030'sp|| Cont'd ~30% Sd
Clusters{Cattleman SS} gy-wh, Vfn-
MdGr'd, Rnd'd- angl, pred silty & micac
& well cm'd-subfribl w/ pr-Fr visbl Poro;
Vrr fribl w/ Fr-Gd Poro; ~5% w/spt'd-
subs at yel-wh FLR & lt-tn-O.STN, &
Slight Show Free Oil & Gas Bubbles
(SISFO&GB) on break, & Sl milky Cut,
Vsl Odor.

3070'sp|| SH: bk carb & gn-gy, sm
pyrto.

3100'sp|| SH:AA & SILTS:gn-gy; Tro Sd
Clust:gy-wh, Vfn-fnGr'd, well cm'd-
AA; NS.

3130'sp|| SILTS: lt-dk-gy, sm sndy; &
SiltySS- Sd Clust: lt gy, Vfn-fnGr'd well
cm'd w/ Vpr-pr visbl Poro w/
NS;NF;NC;

MISSISSIPPIAN 3132 (-1889)

3160'sp|| Pred SH: V.gated; bk carb &
marn-rd & gn-gy; Tro MISS.CHERT:
wh-cm, sm shrp, sm Wthr'd Triple w/
Poro w/ brt FLR:wh-yell, SFO-GB &Cut.

3192'sp|| MISS} Rr CHERT: wh-cm-bf,
opq, sm Lmy & sl dolomo w/ pr visbl
Poro; Vrr Triple w/ Gd Poro <5% w/ brt
wh-yel FLR & V.Lt O.STN & Slight to
Fair Show Free Oil & Gas Bubbles (S-
FrSFO&GB) & Sl-Fr Cut, Sl Odor.

3192'sp|| Cont'd} LS: cm-bf,
microXln(mx)- VfnXln, sm granlr & sl
fos, sm sl dolomo, sm silic & Cherty;
pred Vpr-pr visbl Poro: micro(m-) IXP;
<5% w/spt'd-subsat FLR & O.STN, &
VSI-SISFO&GB & Cut, Sl Odor.

3210'sp|| COWLEY} LS: dk-gy-bn-bk,
pred dn-hd-mx; argil-sm shly; Pred Vpr
visbl Poro- NVP w/ NS; Tro CHERT &
DLS-LS:AA w/ FLR-STN-SFO-Cut.

3224'sp|| LS: bk-dk-gy-bn & cm-wh, sm
mot, pred dn-hd-mx, Rr fragmntl Pkst,
& mx-fnXln; Sl Cherty; Pred Vpr-pr
visbl Poro; Tro m-Frac's & Edges w/ Tro
FLR & Tro Cut; >99% Barren w/ Vpr-
NVP.

3240'sp|| LS: tn-cm, & gy-bn, pred dn-
mx- Vrr fnX; sl Cherty: gy-bn, vit, shrp;
sm argil-shly; Pred Vpr-NVP; NFO; Tro
Resid.Cut

3260'sp|| LS: gy-bn-bk, & tn-cm, pred
dn-mx; sm argil-shly; sl Cherty:gy-
bn,vit; Tro pyrto; pred Vpr-NVP; NFO;
Tro Resid.Cut

3280'sp|| LS: gy-bn-bk, pred dn-mx;
sm silic; sm argil- Rr shly; Sl Cherty;
Vpr visbl Poro-NVP; NFO; Tro
Resid.Cut.

3300'sp|| LS: dk-lt-gy, gy-bn-bk; mx- dn
& argil w/ Vpr-NVP- sm shly; sm silic;
Vsl Cherty; Vpr-NVP; NFO; NF; Tro
Resid.Cut

3320'sp|| LS: gy-bn-bk, dn- mx-VfnXln,
argil, sm silic, Sl Cherty:gy-bn-bk,vit;
Vpr-NVP; NFO; Tro Resid.Cut; sm
SH:AA.

3340'sp|| LS: Pred dk-gy-bn-bk, sm prt
lt-gy, sm mot; mx-VfnX; pred argil, sm
shly; Vpr-NVP; Vsl Cherty; NFO; NF;
Tro Resid.Cut.

3360'sp|| LS & DLS: dk-gy & lt-gy-bf;
mx-VfnX; sm argil-shly; sm Cherty &
silic-spic; Vpr-NVP; NFO; NF; Tro
Resid.Cut.

3380'sp|| LS: dk-lt-gy, gy-bn-bk, mx-
VfnXln, pred argil, sm sl dolomo; sm sl
silic; Vpr-pr visbl Poro; NFO; NF; Tro
Resid.Cut

3400'sp|| LS: AA; & incrs gy-bk V.argil-
shly w/ Vpr-NVP; NFO; NF; Tro
Resid.Cut; sm SH:gy-bk.

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3420'sp} SH-SILTS: gy-bk, calc, sm
micac.

3440'sp} SH-SILTS: dk-gy-bk & dk-gy-
bn, calc & Lmy, sm micac; sm V.argil
mx LS; Vpr-NVP; NFO; NF.

3460'sp} SH: AA, calc, micac.

3480'sp} Pred SH:AA; Trc LS:wh-gy-
tn, mot, Pkst- sl fos; sm chky; Vpr-
NVP; NFO; Trc Resid.Cut.

3500'sp} Pred SH:AA; Vrr LS:AA
(~5%) wh-gy-tn, mot- Pkst, prt chky;
Vpr Poro- NVP; NFO; Trc Resid.Cut.

3520'sp} Abndt LS: (>60%) wh-bf-gy,
mot, prt chky, sl fos- Pkst; Vpr visbl
Poro- NVP; NFO; Trc Resid.Cut.

KINDERHOOK 3524 (-2281)

3550'sp} SH: AA; sm calc & sm bk
carb; & LS:wh-gy, pred dn to chky, sl
pyrte; Vpr-NVP; NFO.

WOODFORD 3544 (-2301)

3600'sp} {WOODFORD} SH: Pred bk
V.carb; sm pyrte; SI Petrol.O dor; Wk to
Fr Resid.Cut.

ARBUCKLE 3580 (-2337)

3550' circ.spl} DOLD: cm-tn-gy, sm
mot, mx-MdXln, incrs Fr Poro: vug &
IXP; Vrr G d visbl Poro; Trc CrsX's- 2nd
ReX; NFO; SI Cherty:wh-cm-gy-tn, mot,
opq, ool & fos.

3620'sp} {ARBUCKLE} DOLD:(Abndt;
>70%) cm-bf-gy-tn, mx-fnXln, sm
granlr, sm m-sucro; Vrr prt MdX; SI
Chrty:wh-gy, sm ool, sm trans-Qtzc;
pred pr-Vpr visbl Poro: IXP; Trc FLR-
SFO-S TN-Cut; >99%Barren.

TD 3650