

07/07/08. Developed 06/06/08; Sampled 06/06/08 and 06/10/08.

570 mg/L

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| ŧ | X | 50 | lutions, Inc. | (Page 2 of 2) | | | | | | |
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| | uckeye NE/4 N Lea | Water W/4, S a Coun | ergy Corporation Release Investigation ec. 35, T18S, R35E ty, New Mexico t", W103° 25' 52.9" | Date, Time Started: 06/06/08, 0850Date, Time Completed: 06/06/08, 1035Hole Diameter: 6-1/4", 4-3/4" tricone bitsDrilling Method: Air RotarySample Method: Air cuttings | | Dril s Log Cor | • | : Ingersoll-Rand TH-60 : Harrison-Cooper, Lubbo : D.G. Boyer, P.G., SESI : | | |
| Depth in Feet | nscs | GRAPHIC | Water Levels Hydrocarbon Product Measured Water Leve DESCRI | | Well: MW-1 Elev.: | | | Construction ormation | | |
| 40 - - 45 - - - - - - - - - - - - - - - - - - | SP | | 40 ft. SAND, brown, very uniform, change to 4-3/4" 40-45 ft. SAND, brown, ve uniform 45-50 ft. SAND, brown, ve uniform | sand bit for drilling ery fine grained, ery fine grained, | | casing onite seal | COMPLETION D/ Hole Depth TD Inside casing TD from surface CASING, SCREE Material, joints Diameter Manufacturer Screen type, lengt Screen type, lengt Screen opening Scren. placement Sump Bottom Cap Protector Casing Lock Key # SEALS & SAND P | : 80 ft, below LS : 72.71 ft, below TOC : 70.1 ft, below LS N & CAP : PVC, threaded : 2 in. ID : Monoflex th : Slotted, 15 ft. : 0.010 slot : 55-70 ft. BLS : None : 0.2 ft PVC : Above-ground steel : | | |
| - 55 — - - - 60 — - - | SS | | 50-55 ft. SAND, brown, fir occasional sandstone frag 55-62 ft. SAND, with occa fragment 62-64 ft. SANDSTONE, h | gmēnt sional sandstone | PVC s | pack screen | Annular seal size Seal volume Seal placement Sand pack name Sand size, volume Sand placement | : QuikCrete : 3 bags : 0-3 ft. BLS : Holeplug bentonite : 3/8" chips : 15 bags, hydrated : 3-52 ft. BLS : Oglebay-Norton : 20-40 silica, 9 bags : 52-69.5 ft. BLS e) : Sand, 69.5-80 ft. BLS : approx. 3,867 ft. | | |
| 65 — - - 70 — - | | | 4-3/4" tricone 64-65 ft. SAND, brown, ve uniform, change to 4-3/4" 65 ft. SAND, H2O saturate | sand bit ed | PVC s | сар | sand bit at 40 ft. C bit at 62 ft., back to Saturated at 65 ft. slot screen, placed ft. Left casing as te 07/07/08: Returned as permanent well | b 80 ft. Change to 4-3/4" change to 4-3/4" tricone o sand bit at 65 ft. Installed 15 ft. 0.010 I sand (9 bags) to 52 emporary well. d to site and completed | | |
| - - 75- - - - | SP | | 65-80 ft. SAND, making w | ater | | e backfill | cement above-group protection box with WELL DEVELOPM 06/06/08: Develope gallons water and s Before purging, TV 72.30 ft. | und steel well concrete pad. IENT: ed well, pumped 17 | | |

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Completed as a temporary well TMW-2; converted to permanent 07/07/08. Developed 06/06/08; Sampled 06/06/08 and 06/10/08.

V ιg μ 'y ıy), 570 mg/L.

| Safety & Environmental Solutions, Inc. | | | | LOG OF BORING MW-2 | | | | | | |
|---|--|---------------------------|---|--|----------------------|----------------------------|---|---|--|--|
| + | ¥(| 50 | iutions, inc. | (Page 1 of 1) | | | | | | |
| E | ^v Buckeye NE/4 N ^v Lea | Water W/4, S a Coun | ergy Corporation Release Investigation lec. 35, T18S, R35E ity, New Mexico 3'', W103° 25' 56.2'' | Date, Time Started: 07/07/08, 0805Date, Time Completed: 07/07/08, 0905Hole Diameter: 6-1/4", 4-3/4" tricone bitsDrilling Method: Air RotarySample Method: Air cuttings | | Drill bits Loge Corr | ed By | : Ingersoll-Rand TH-60 : Harrison-Cooper, Lubboc : Isaac Kincald, SESI : | | |
| Depth in Feet | - | GRAPHIC | Water Levels U Hydrocarbon Product Weasured Water Level DESCRI | | Well: MW-2 Elev.: | | Well (| Construction formation | | |
| 0. 5- 10- 15- 20- 25- 30- 35- 40- 40- 55- | CA/SP CA ML/CA CA/SM CA SP SP/SS SP | | 0-0.5 ft. CALICHE rock wi 0.5-5 ft. CALICHE, hard ro fragments 5-10 ft. SANDY SILT with CALICHE, light brown 10-15 ft. SANDY SILT with CALICHE, light brown 18-20 ft. Hard rock layer, 0 quartz, with SILTY SAND 20-25 ft. CHERT, silica qu 27-30 ft. SAND 30 ft. SAND, tan brown, fir 30-35 ft. Mixed SAND and layers 35 ft. SAND, tan brown, ve 35-40 ft. SAND, tan brown, ve 35-40 ft. SAND, tan brown, ve 35-40 ft. SAND, fine graine 47-49 ft. SAND, light brown, v slightly damp 50-55 ft. SAND, light brown, v | Deck with chip ground-up ground-up DECHERT, silica CHERT, silica | Ce Ce | | Sand placement Native backfill (typ ELEVATIONS. Ground elevation Top of casing WELL INSTALLAT 07/07/08: Drilled to tricone bit. Saturate ft. 0.010 slot scree bags) to 58 ft. Add bentonite, 3 bags (| 75 ft. below LS 73.06 ft. below TOC 70.4 ft. below TOC 70.4 ft. below LS N & CAP PVC, threaded 2 in. ID Monoflex h Slotted, 10 ft. c 0.010 slot c 60.5-70.5 ft. BLS None 0.2 ft PVC Above-ground steel ACK QuikCrete 3 bags c -3 ft. BLS PDS bentonite 3/8" chips 9 bags, hydrated 3-58 ft. BLS Oglebay-Norton 20-40 silica, 3 bags 58-70 ft. BLS e) Sand, 70-75 ft. BLS approx. 3,880 ft. | | |
| 60- 65- 70- | SS/CA SP | | 55-60 ft. CALICHE (sandst 60 ft. Hard rock CALICHE 62 ft. SANDSTONE with C. 63 ft. Saturated, water, SAI medium grained, wet 65-75 ft. SAND, brown, we 5-1/4 in. tricone bit. | (Sandstone) ALICHE ND, brown, fine to | PVC | l pack screen | out of well. Before | | | |

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Notes: Sampled 07/08/08. Field chloride test on sample, 0900: 61 ppm, lab result 69 mg/L.

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|--|---|---------|---|---|--------------------|-------------------------------|---|---|--|
| Palidin Energy Corporation Buckeye Water Release Investigation NE/4 NW/4, Sec. 35, T18S, R35E Lea County, New Mexico N32° 42' 39.0", W103° 25' 51.9" | | | | Date, Time Started: 07/07/08, 0915Date, Time Completed: 07/07/08, 1015Hole Diameter: 6-1/4", 4-3/4" tricone bitsDrilling Method: Air RotarySample Method: Air cuttings | | | Drilling Equipment : Ingersoll-Rand TH Drilled By : Harrison-Cooper, I Logged By : Isaac Kincaid, SES Company Rep. : Survey By : | | |
| pth n eet | nscs | GRAPHIC | Water Levels United Water Levels Weasured Water Level DESCRI | PTION | Weil: MV Elev.: | – Cover ⊐ → Steel weil | lr | Construction ofrmation | |
| 25 | CA/SP CA CA/ML ML SS/SM ML/CA CA/SP | | 0-0.5 ft. CALICHE rock wit 0.5-5 ft. Quartz CALICHE, chip fragments 5-10 ft. Quartz CALICHE wand and SANDY SILT, light brown 10-19 ft. SANDY SILT, light brown 19-20 ft. SANDY SILT and brown 19-20 ft. SANDY SILT with light tan 25-30 ft. Alternating CALIC layers 27 ft. SAND, very fine grain caliche chips 30-35 ft. Alternating CALIC layers 34 ft. CALICHE 34-35 ft. SAND, tan brown 35-40 ft. SAND, tan brown | light brown, with vith chip fragments, wn caliche chips, light aratz chert, hard SILTY SAND quartz CALICHE, CHE and SAND hed, with miminal CHE and SAND very fine grained | | mrata atan ba | COMPLETION I Hole Depth TD Inside casing TD from surface CASING, SCRE Material, joints Diameter Manufacturer Screen type, len Screen opening Scrn. placement Sump Bottom Cap Protector Casing Lock Key # SEALS & SAND Cement seal typ Cement volume Cem't placement Annular seal nar Annular seal nar Annular seal nar Sand placement Sand placement | : 75 ft. below LS g: 73.89 ft. below TOC : 71.2 ft. below LS EN & CAP : PVC, threaded : 2 in. ID : Monoflex gth : Slotted, 10 ft. : 0.010 slot : 61-71 ft. BLS : None : 0.2 ft PVC g: Above-ground steel : PACK e: QuikCrete : 3 bags t: 0-3 ft. BLS me : PDS bentonite e: 3/8" chips : 10 bags, hydrated : 3-58 ft. BLS e: Oglebay-Norton ne: 20-40 silica, 3 bags : 58-70 ft. BLS ype) : Sand, 70-75 ft. BLS | |
| 15 15 15 15 15 15 15 | SP CA/SP | | 40-45 ft. SAND, tan brown, with caliche chips 45-50 ft. SAND, tan brown, with caliche chips, moist 50-55 ft. SAND, tan brown, with caliche chips, moist 55-60 ft. CALICHE and SA | very fine grained very fine grained | | | Top of casing WELL INSTALLA 07/07/08: Drilled tricone bit. Satura ft. 0.010 slot scre bags) to 58 ft. Ar bentonite, 3 bags above-ground sta and concrete pac WELL DEVELOF | ATION: to 75 ft. using 5-1/4" ated at 63 ft. Installed 10 sen, placed sand (3 dded 10 bags BDS s Quikcrete to cement sel well protection box d. | |
| - | SS/CA | | 62 ft. SANDSTONE with C, 63 ft. Saturated zone, SAN | | | −Sand pack −PVC screen | pump, purged 25 out of well. Befor | ped well using air lift gallons water and sand e purging, TW 61.96 ft. 8 ft. After development | |
| | SP | | 65-75 ft. SAND, brown, wei | : | | – PVC cap – Native backfil | | | |

C

Sampled 07/08/08. lab result 70 mg/L.

| Palidin Energy Corporation Buckeye Water Release Investigation NE/4 NW/4, Sec. 35, T18S, R35E Lea County, New Mexico N32° 42' 36.6", W103° 25' 52.2" | | | | (Page 1 of 1) | | | | | | |
|--|------------------|--------------------|---|---|---|--|--|--|--|--|
| | | | | Date, Time Started : 08/25/08, 0830 Date, Time Completed : 08/25/08, 0910 Hole Diameter : 6-1/4", 4-3/4" tricone bits Drilling Method : Air Rotary Sample Method : Air cuttings | | | Drilling Equipment Drilled By Logged By Company Rep. Survey By | | Ingersoll-Rand TH-60 Harrison-Cooper, Lubboo Isaac Kincaid, SESI | |
| 20 | | 2' 36.6 CRAPHIC | W103° 25' 52.2" Water Levels ➡ Hydrocarbon Product ➡ Measured Water Level DESCRI 0-5 ft. CALICHE rock with caliche chip fragments 10-15 ft. SILTY SAND, lig caliche chip fragments 18 ft. Hard rock layer 20 ft. CALICHE, white witt 20-25 ft. Hard rock layer vite | Sample Method : PTION SAND, tan brown ht tan brown with n silty sand (quartz) | - | - Cover - Steel well - protector b - Cement | DX COMPLE Hole Dept TD Inside TD from s CASING, Material, j Diameter Manufacti Screen ty Screen op Scrn. plac Sump Bottom Ca Protector Lock Key | Info TION DA th casing urface SCREEN oints Jumer De, length sement ap Casing # | : 75 ft. below LS : 73.11 ft. below TOC : 70.4 ft. below LS I & CAP : PVC, threaded : 2 in. ID : Monoflex of Slotted, 10 ft. : Slotted, 10 ft. : 0.010 slot : 60-70 ft. BLS : None : 0.2 ft PVC : Above-ground steel : | |
| 25- | SP | | white chips 25-28 ft. Hard rock layer 28 ft. SAND, brown 30 ft. SAND, light brown w 30-35 ft. Alternating SANI 35 ft. SAND with sandstor tan brown 35-40 ft. Alternating SANI sand fine, tan brown with 40-45 ft. SAND, tan brown quartz fragments | D and CALICHE ne fragments, light D and CALICHE, chip fragments | | – Bentonite se | Seal place Sand pack Sand size Sand plac | eal type olume cement eal name eal size me coment coment ckfill (type DNS. evation | : QuikCrete : 3 bags : 0-3 ft. BLS : PDS bentonite : 3/8" chips : 16 bags, hydrated : 3-58 ft. BLS : Oglebay-Norton | |
| 55 11 20 | SP | 70 | quartz fragments 50-55 ft. SAND, tan brown quartz fragments, moist 55-60 ft. SAND, tan brown quartz fragments, moist 61 ft. CALICHE layer | n, fine grained, | | – Sand pack | tricone bit. ft. 0.010 si bags) to 5 bentonite, above-gro and concre | Drilled to Saturate lot screen 58 ft. Add 3 bags C bund stee ete pad. | 75 ft. using 5-1/4" ed at 65 ft. Installed 10 n, placed sand (4.5 ed 16 bags BDS Quikcrete to cement I well protection box | |
| 35 - - 70 - | CA SS L/MS | | 65 ft. CALICHE (sandstom white 65-70 ft. SANDSTONE, co tan sand, water zone at 64 70-75 ft. CLAY or MUDST brown | barse grained with | | – PVC screen – PVC cap – Native backf | 08/26/08: pump, pur out of well BTOC, TD TD: 73 03 | Develope ged 12 g . Before 0: 73.11 fi | LOPMENT: veloped well using air lift d 12 gallons water and sand efore purging, TW 63.81 ft. 3.11 ft. After development | |

Sampled 08/26/08. Field chloride test on sample, 1100: 2,084 ppm, lab result 1,700 mg/L.

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